

## **PETER A. ANGELIDES, PhD, AICP**

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January, 2014

### **EDUCATION**

#### **University of Minnesota**

Doctor of Philosophy in Economics, February 1998  
Master of Science in Economics, December 1996  
Thesis topic: "Auto Ownership and Mode Choice: A Structural Approach"  
Fields: Industrial Organization, Financial Economics

#### **University of Pennsylvania**

Master of City Planning, May 1988  
Bachelor of Arts – Major: Urban Studies (Honors); Minor: Mathematics, May 1987

### **CURRENT POSITIONS**

**Econsult Solutions, Inc.**, Philadelphia, PA, *Principal*, 2013 – Present.

**Econsult Corporation**, Philadelphia, PA, *Vice President and Director*, 2008 – 2012.

- Conduct economic, financial and strategic analyses for public and private entities.
- Concentrations include real estate development, transportation, economic development, economic and fiscal impacts, and financial modeling.

**University of Pennsylvania**, Philadelphia, PA, *Faculty*, 2004 – Present

- Fels Institute of Government, City Planning Department

**Delaware Valley Smart Growth Alliance** – Primary Juror, Business Caucus

**Design Advocacy Group** – Steering Committee

**St. Peter's School** – Finance Committee

**Urban Land Institute** – Capital Markets Council, Technical Assistance Program Council

### **PAST POSITIONS**

**PricewaterhouseCoopers**, Philadelphia, PA, *Manager, Director*, 2001-2008

- Provided economic and statistical modeling and analysis in business consulting, litigation and regulatory matters.
- Major work included litigation support in a variety of industries and case-types, setting prices for intellectual property and services, and evaluating the impact of royalty licensing agreements.

**Charles River Associates**, *Senior Associate*, Washington, DC, 1999-2001

- Provided economic analysis, primarily for Fortune 500 companies seeking Federal regulatory approval for mergers or joint ventures. Antitrust, commercial damages.

**PHB Hagler Bailly / Putnam, Hayes & Bartlett**, *Consultant*, Washington, DC, 1997-1999

- Economic and litigation consulting in the telecom, energy, pharmaceutical, and postal industries

**University of Minnesota**, *Instructor*, 1993-1997

- Taught eleven undergraduate and master's level economics classes and supervised more than 30 independent study projects.

**Wallace Roberts & Todd**, Philadelphia, PA, *Urban and Environmental Planner*, 1990-1992

- Provided planning services to private developers, state and county government, and the Washington Metropolitan Area Transportation Authority.
- Projects included preparation of county level master plans, analyzing the impact of statewide zoning changes, updating municipal zoning codes, and preparation of environmental impact statements.

**Central Philadelphia Development Corporation**, *Planner/Intern*, 1988-1990

- Supported the activities of CPDC committees and conducted numerous analyses in support of CPDC's initiative to create what became the Center City District.

## SELECTED PROJECTS

### *Consulting and Planning*

- SEPTA – *Understanding SEPTA's Statewide Economic Impact*. Valued the economic impact of SEPTA's expenditures, as well as SEPTA's importance to the region's productivity.
- City of Chester – *Revitalization Plan for the Chester Transportation Center*. Analyzed the Chester SEPTA station and surrounding areas for economic development opportunities.

- University of Delaware – Participated in the creation of a strategic plan for a large newly acquired parcel adjacent to its main campus. (Newark, DE)
- Estimated the economic impact of a proposed coal mine on a mid-western state. The analysis included a calculation of the overall economic impact on the state, including output, wages, jobs and taxes.
- Marcus Hook – *Economic Development Agenda for Marcus Hook*. Identified economic development strategies and analyzed the potential for a land value tax or tax abatement in Marcus Hook.
- Delaware Valley Regional Planning Commission – *Using Toll Revenue to Finance Highway and Transit Capital Improvements*. Analyzed the ability of tolls on US 422 to finance roadway upgrades and the re-establishment of commuter rail service to Philadelphia. (Pennsylvania)
- Select Greater Philadelphia – *US 422 Improvements – Potential Economic Impacts*. Prepared an assessment of the potential economic impacts of restored passenger rail service and upgraded highway infrastructure in the US 422 corridor. (Pennsylvania)
- Philadelphia Water Department – *Economic Analysis of Stormwater Fee Changes on Philadelphia Businesses* (Philadelphia, PA)
- King of Prussia Business Improvement District – *Development Incentives Package For the King of Prussia Business Improvement District* (King of Prussia, PA)
- City of Coatesville – *Vision plan and retail study as part of Coatesville's economic development strategy*. (Coatesville, PA)
- City of Coatesville – Prepared an Economic Development Strategy for the City of Coatesville, Pennsylvania. The strategy addressed ways to increase Coatesville's attractiveness as a place to live and work, and analyzed the current tax receipts to guide future development efforts. (Coatesville, PA)
- New Jersey Council On Affordable Housing (COAH) – Created a real estate development feasibility model. COAH uses this pro-forma based model to evaluate the financial performance of proposed private real estate developments in instances where the developer is petitioning COAH with regard to the affordable housing component of the development. (New Jersey)

- New Jersey Council On Affordable Housing (COAH) – Analyzed housing and employment growth at the municipal level for purposes of determining affordable housing requirements in the state. (New Jersey)
- Evaluated the feasibility of the market rate components of an inclusionary development in Cinnaminson, New Jersey to support the construction of affordable housing. The analysis was prepared for an Acting Special Master to the Superior Court Judge to assist the court determine whether the proposed development was “economically Feasible” for the purpose of applying for Low Income Tax Credit Financing through the New Jersey Housing Mortgage and Finance Agency. (New Jersey)
- New Jersey Housing Mortgage and Finance Agency (HMFA) – *Analysis of Four HOPE VI Development Proposals*. Evaluated the appropriateness of development costs for several affordable housing projects. (New Jersey)
- New Jersey Housing and Mortgage Finance Agency (HMFA) – Analyze the economic feasibility of multiple housing developments with and without tax credit assistance. (New Jersey)
- Coalition for Main Street Fairness - *The Impact of Not Collecting Sales and Use Taxes from Internet Sales into Pennsylvania*. Analyzed the economic consequences to Pennsylvania if it were able to collect sales tax from all internet retailers (Pennsylvania)
- Transportation Investment Generating Economic Recovery - Prepared benefit-cost analysis for numerous TIGER grant applications:
  - Lower Merion Township – Ardmore Transportation Center (Lower Merion, PA)
  - Philadelphia Museum of Art – Roadway and Pedestrian Concourse Improvements (Philadelphia, PA)
  - Central Philadelphia Development Corporation – Bicycle Lanes and Pedestrian Improvements to Market Street and JFK Boulevard (Philadelphia, PA)
  - Central Philadelphia Development Corporation – Renovation of Dilworth Plaza (Philadelphia, PA) \$15 million awarded
  - City of New Haven – Downtown Crossing urban boulevard, Phase II (New Haven, CT)
  - Streetworks – Quincy Green project (Quincy, MA)
  - Waretown – Roadway Improvements for a New Town Center (Waretown, NJ)
  - Secaucus Brownfield Development Corporation – Parking lot at the Lautenberg – Secaucus Train Station (Secaucus, NJ)
  - Southeastern Pennsylvania Transportation Authority (SEPTA) – Track Segregation of the West Trenton line so CSX and SEPTA traffic does not intermix (Bucks County, PA). \$10 million awarded

- Regional Municipality of Wood Buffalo – *Real Estate Solutions for the Regional Municipality*. Recommended development strategies for rapidly growing municipality near Alberta's oil sands (Alberta, Canada)
- Delaware Valley Healthcare Funders – *The Economic and Fiscal Impacts of Medicaid Expansion in Pennsylvania*. Conducted analysis regarding the incremental effect of Medicaid expansion from the baseline set by the Affordable Care Act.
- Bureau of Labor Statistics - *Analysis of Possible Data Sources for the Estimation of Owner Equivalent Rent*. Conducted four analyses for the BLS to help them improve calculation of the Consumer Price Index. (Washington, DC)
- Central Philadelphia Development Corporation (CPDC) – *Fiscal Impacts of the Proposed 22nd Street Subway Station*. Evaluated potential economic and fiscal impacts. (Philadelphia, PA)
- Parkway Council Foundation – Examined alternatives for reconfiguring Eakins Oval in front of the Philadelphia Museum of Art and the intersection of 25<sup>th</sup> Street, Pennsylvania Avenue, Kelly Drive and Fairmount Avenue. (Philadelphia, PA)
- Parkway Council Foundation – Prepared a strategic plan to assist the Parkway Council Foundation realize its vision for the Benjamin Franklin Parkway in Philadelphia as an exceptional cultural destination. (Philadelphia, PA)
- Studied strategic investments in commercial corridors in Philadelphia. The study combined extensive, locally unprecedented data gathering with thorough econometric analysis to investigate the drivers of commercial success for all 265 retail corridors in Philadelphia. The study included an examination of which City and non-profit based interventions in corridors were effective in improving corridor performance. The analysis also included a simulation tool to model and predict the impact of future interventions on corridors.
- Analyzed the Philadelphia Parking Tax for the Philadelphia Parking Association. The analysis investigated the share of revenue devoted to state and local taxes in several industries, the impact of the parking tax on the ability to develop parking facilities, and the impact of the tax on parking prices.
- Lower Merion Township - Evaluated proposals for the mixed-use, transit-oriented development in Ardmore, PA. This ongoing engagement provides Lower Merion Township with assistance in evaluating alternative development proposals for downtown Ardmore. The project includes the evaluation of residential, commercial and public uses, and assists in navigating the complex world of public-private partnerships with multiple interested public and private parties. (Lower Merion, PA)

- New York City Economic Development Corporation – Assessed the competitiveness of trash collection market in New York City. The assessment included calculation of market shares from data collected by the regulator, analysis of costs and ownership structures, and the use of a large survey. As a result of the analysis, the City proposed increasing the price cap governing haulers. (New York, NY)
- Evaluated the rates and claims experience of a health plan for a major health insurance company investigating the cause of an increase in claims from one of its clients. A major part of investigation concerned the analysis of several large claims and enrollment databases to determine the underlying causes for a large increase in claims per member.
- Assisted a software company conduct an internal review of an advertising campaign which involved numerical claims. The assignment involved liaising with the internal and external creators of the campaign to recreate the model underlying the claims, and to conduct additional modeling to extend the analysis. The analysis focused on two main issues - was the numerical calculation properly done, and was the numerical calculation appropriate for the purposes of the campaign.
- Prepared a land consumption analysis for a Mid-Atlantic state experiencing rapid suburbanization and construction on the fringes of metropolitan areas. The county-by-county analysis projected the percent of land that would remain undeveloped after 30 years of growth.
- Prepared Environmental Impact Statements for the Washington Metropolitan Transportation Authority as it sought regulatory approval for the expansion of its heavy rail network. The Statements reviewed visual, construction, noise and other impacts to land use, historic assets, wetlands and other natural features. Based on the analysis in the statements, the final designs of the projects were modified to ameliorate the identified impacts.
- Monroe County – Prepared analyses in support of a master plan for Monroe County, Florida. The analysis included the preparation of thematic maps, proposed land uses, and calculations regarding housing capacity. A major constraint was consideration of evacuation capacity in the event of a hurricane. (Florida)

### ***Regulatory***

- Conducted market power analyses and prepared testimony for the Federal Energy Regulatory Commission regarding the following matters:

- Market power studies for ancillary services, for sale at market-based rates into the California Independent System Operator, in support of the sale of generating capacity from Pacific Gas & Electric to Southern Energy.
  - Market power studies in support of market based rate authority for sale of ancillary services to ISO New England. (FERC Section 203)
  - Market power studies in support of the purchase by the Southern Company of several generating units in New England. (FERC Section 205)
  - Market power studies in support of the purchase by the Southern Company of several generating units in New York
- Analyzed the rate structure of the U.S. Postal Service in an omnibus postal rates case, and modeled the impact of different pricing theories on the rates for the various classes of mail. Prepared testimony regarding the new pricing method, which was filed with the Postal Rate Commission. Concurrently, analyzed testimony and models of several Postal Service witnesses in the rate case for consistency with the requirements of Postal Service's enabling legislation.
  - Analyzed U.S. Postal Service volume forecasts for a category of mail and submitted testimony regarding the reliability of this forecast, which was based on an elasticity calculated from aggregated data. In addition, analyzed the rate design for two subclasses of mail, and submitted testimony regarding new rate designs.

### *Litigation*

- Calculated damages from delay in the sales of a large luxury condominium development in New York. The analysis calculated how much the delay slowed the rate of closings and impacted the price at which the condominiums sold because the delay pushed sales into a down market.
- Determined the appropriate cram down interest rate in a bankruptcy proceeding. The case involved a bank foreclosure on a golf course that was in Chapter 11 proceedings. The calculation of the interest rate looked at risk factors appropriate to the course and its particular situation.
- Calculated the fiscal impact of a tax credit to a developer on a municipality. The analysis reviewed the methods, inputs and assumptions of a fiscal impact model. The proffered model claimed more than \$200 million in fiscal benefits over 20 years, whereas with the more appropriate assumptions and methods, the impact model should have shown fewer than \$80 million of impact.

- Analyzed the potential profitability of a real estate development in suburban Kansas City. The analysis examined the potential sale price and sales pace of building lots during the 2008-2011 period, focused on whether lots would sell according to plaintiff's damage analyses. The investigation used sales data for all developments within the submarket to calculate a sales pace and price. The case settled, and our report was cited as the major reason for moving the two sides together. (Kansas City, KS)
- Calculated the profitability of commercial real estate development along the Philadelphia waterfront in the absence of tax incentives. The analysis required the order of estimation of construction costs, financing costs, and potential rents.
- Assessed the ability of a private, for-profit, golf course to continue operations as a golf course by forecasting club profit and loss based on industry growth forecasts and financing commitments made by the owners of the course. The assessment included analysis of potential alternative uses for the golf course, including the addition of housing to the course and the conversion of the facility, in whole or in part, into non-golf course uses. Finally, I compared the suitability of the golf course site with another site for the potential to provide affordable housing.
- Calculated the impact of a municipal regulation severely restricting the sale of cigars in packages of fewer than five cigars. The analysis used industry data on shipments of cigar packages to all types of stores and scanner data on sales at retail stores to quantify the number of cigars sold in the jurisdiction, broken down by package size and by sales channel, as well as to estimate the total expenditures on cigars. The analysis estimated the change in the number of cigars that would be sold as a result of the regulation, as well as the impact of the regulation on other jurisdictions.
- Calculated the value of a ground lease to the owners of an undeveloped restaurant pad. The pad had been leased but not developed, and the restaurant chain that had leased the pad sought to escape the lease by paying the fair value of the remaining lease payments to the landlord. Though there were still more than 15 years on the lease, the pad had significant value as a development site that could be realized if the lease were terminated. Our analysis included evaluating the price and timing of releasing opportunities, using Monte Carlo simulation to address uncertainty, and applying appropriate discount rates to the future cash flows.
- Determined the appropriate discount rate to use in a marital dissolution matter. The main wage earner is a highly compensated, high net-worth individual in the financial services industry, and a primary driver of the settlement amount was the riskiness of his potential future earnings. The analysis included a consideration of his compensation structure, and assessment of its historic volatility, and an examination of his continued ability to work.

- City of Allentown – Assisted the City of Allentown, Pennsylvania negotiate with its police union. The project included modeling the financial impact of contract proposals on the city budget, comparing the terms of the existing and proposed contracts with the terms of contracts from similar cities, preparing presentation material explaining the analyses, and testifying at the arbitration. The arbitration adopted most of the City's positions. (Allentown, PA)
- Upper Darby Township – Tax Base Analysis for Upper Darby Township. Conducted a tax base analysis and testified at arbitration for Upper Darby as part of its contract negotiations with its police union. (Upper Darby, PA)
- Assisted American Express in the preparation of its business interruption insurance claim related to damages suffered as a result of the September 11 attacks on the World Trade Center. The assistance involved the determination of potential areas of loss, and the quantification of revenues and costs that would have been realized had the interruption not incurred.
- Assisted a health insurance company investigate the impact of errors in claims processing on the appropriate purchase price of the company that made the errors. The analysis included investigation of the health care claims, and a recreation and examination of valuation models used to assist deal makers set the price for the acquisition.
- Calculated damages to purchasers of variable universal life insurance, who allege they purchased policies based on misrepresentations made by the insurance agent. The analysis investigated the value of the policies through several methods, including the cost of replacement policies and the value of a portfolio of investments that could have been made as an alternative to purchasing the insurance policies. The analysis was the starting point for the ultimate settlement.
- Calculated damages and analyzed opposing expert's report in a state-wide class action suit between a health insurance company and member pharmacies. The plaintiffs alleged that the insurance company was obliged to continue making certain payments that it had made in the past. Our damage calculation extrapolated past payments through the damage period. The analysis of the opposing expert centered on the lack of connection between the liability theory and the method for calculating damages.
- Calculated damages to a not-for-profit organization from the allegedly wrongful actions of a local government. The not-for-profit, a provider of housing for physically and mentally disabled residents, claimed the actions caused its costs to increase. The analysis compared costs across years and quantified the cost increase attributable to the municipality's actions.

- Calculated damages resulting from a company's withdrawal of its long-term care insurance products on its outside sales force. The analysis included a thorough review of the plaintiff's damage model, and the production of an alternative model. The analysis concentrated on the structure of the agent's commissions, the relationship between the agents and the provider of long-term care insurance, and the assumptions about the size of the market.
- For a large pharmaceutical company, evaluated the potential exposure of the company in a large class action lawsuit regarding drug pricing. The analysis calculated the potential value of claims for drugs provided to Medicaid and Medicare recipients.
- Performed several analyses with respect to drug pricing for a large pharmaceutical company. The analysis involved the review of all sales by the manufacturer of the majority of its prescription products. The result integrated direct sales, chargebacks, rebates, and other pricing adjustments.
- In a suit alleging that an insurer with a retrospective workers compensation policy was overpaying claims, reviewed records of the largest claims to determine the appropriateness of the payments. The analysis involved analyzing the claim files, constructing timelines, and reviewing the policy to determine consistency with the contract.
- Determined overcharges in a class-action dispute between resellers of toll-free 800 service and several Local Exchange Carriers. The case involved extensive discovery of decade-old documents, the reconstruction of the quantity of a specific type of phone call, and the research and application of appropriate tariffs. The analysis was also conducted using a top-down, industry-wide model to confirm the results of the reconstruction.
- Conducted analyses, including a damages calculation, for an independent power producer in a breach of contract dispute with its host utility. The engagement involved the reconstruction of the opposition's analysis concerning the construction of the power plant and the viability of the contract with the plant, as well as a projection of the future income stream under a variety of contract interpretations and the calculation of the present value of the income streams.
- Calculated damages in a breach of contract dispute between the owners of a chain of cell-phone kiosks in a major discount store with the host discount store. The engagement involved the calculation of revenue the kiosk owners could have expected to receive from the customers who would have purchased phones at the kiosks. This involved the review of previous sales, extrapolation of sales trends, and the application of shrinkage factors as customers discontinued service.

### ***Intellectual Property Litigation***

- Determined damages in a copyright infringement case involving a luxury goods manufacturer and retailer. The analysis focused on determining the costs appropriately attributable to manufacturing, distributing, selling and servicing the products that were allegedly infringing a copyright, and then valuing the profits attributable strictly to that line of products through a discounted cash flow analysis. The case required an investigation of the company's operations to determine the nexus between each of the firm's cost centers and the allegedly infringing products.
- For a direct response television marketer, determined damages in a copyright infringement case against a competing firm. The analysis determined the defendant's revenue from direct response television sales of the allegedly infringing product, as well as the portion of the defendant's retail sales that were properly attributable to its direct response television spots.
- Assisted a large software company (Microsoft) determine the appropriate royalty program, including royalty rates, maximums, minimums and other terms, for sets of Windows Server protocols that the European Union required Microsoft to License as part of the remedy in an antitrust case against Microsoft. The work included conducting income based and market based valuations of the protocols, including several written reports presented to the European Commission. The project also included preparing written analysis explaining how the company's plan was reasonable and non-discriminatory, and was an appropriate response to the regulator's decision.
- Evaluated the impact of a set of technology licenses on the licensor. The analysis included calculating royalties paid, assessing the markets for products based on the licensed technology, and determining the ways in which the licensees' products were complimentary or competitive to the licensor's products.
- Defended patent validity in a case involving an over-the-counter medication. The issue was whether the medicine provided surprising benefits, fulfilling the non-obviousness test required for patenting. The analysis included reviewing the results of several clinical trials, and then conducting new analysis by combining the data from the trials into one larger data set.
- Analyzed a royalty distribution model used to determine payments to content creator in situations where no record of the originator of the content was kept. The analysis showed that the distribution model led to royalty payments that were not proportional to the number of times a creator's works were copied.

- Conducted reasonable royalty calculations in a patent infringement case. The case involved both the review of the Georgia-Pacific factors to determine a reasonable royalty, and a critique of another calculation of a reasonable royalty.
- Modeled revenues for several pharmaceutical products in an intellectual property and breach of contract dispute.

### *Antitrust and Securities Litigation*

- For a provider of services to internet and small scale retailers, conducted an analysis to determine potential 10b-5 damages to shareholders resulting from its alleged failure to disclose material information. The analysis included a review of events potentially causing changes in the stock price, as well as the use of trading models to determine the number of damaged shares.
- For an exclusionary dealing claim against a manufacturer of agricultural chemicals, evaluated the effect of the defendant's dealer-loyalty program on the ability of new entrants to gain market share. The analysis included a review of the loyalty program, as well as definitions of the relevant markets.
- Conducted a potential damages analysis in a 10b-5 case against the auditors of a manufacturer of building supplies. The manufacturer was accused of fraudulent accounting and inaccurate disclosures regarding the amount of revenue from an overseas customer. The analysis evaluated the potential liability of the auditor, based on dates the auditor knew or should have known about the fraudulent accounting
- For a merger between a broadcast network (CBS) and a production studio with broadcast interests (Viacom), evaluated the effect on the broadcast advertising market, the market for the sale of first-run television programs to the networks, and the sale of syndicated shows to the local broadcast stations. The merger was cleared by the Department of Justice with no conditions.
- For a merger between two major interstate gas pipeline companies (Coastal and El Paso), evaluated horizontal overlaps in several geographic regions. The case involved investigating the operations of the pipeline businesses, including future plans, to identify actual or potential competitors to the merging parties. In areas where there was significant, market-affecting overlap, participated in negotiations with the Federal Trade Commission to minimize divestitures.
- For a joint venture between a gas pipeline company and an investor owned utility (El Pso and Southern Company), evaluated several market overlaps and investigated the validity of the

government's anticompetitive theories, including raising rivals' costs, regulatory evasion, and direct competition between gas and electricity for residential heating. Vertical issues played a substantial part in the analysis.

- For the acquisition of a number of brands by a major consumer products company (Diageo, Pernod, and Seagrams), evaluated the effect of the combination of brands on the consumer. This case was mostly concerned with market definition. The analysis included using econometric modeling on a large supermarket scanner data set to calculate cross-elasticities of demand to demonstrate empirically the extent of the market.

## **COURSES TAUGHT**

### **University of Pennsylvania, 2004-present**

CPLN 633: Urban and Regional Economics

GAFL 724: Infrastructure Investment and Economic Growth: Why, How and When?

URBS 456: Economics and Urban Affairs

### **University of Minnesota, 1993-1997**

Cost - Benefit Analysis, Industrial Organization, Welfare Economics, Principals of Microeconomics, Intermediate Microeconomics, Principals of Macroeconomics, International Trade and Payments

## **STUDENTS SUPERVISED**

Mengke Chen – Agglomeration Economies and High Speed Rail. University of Pennsylvania, PhD in City Planning, Independent Study, 2011

Jonathan Broder – New York City Highline. University of Pennsylvania, Master of Liberal Arts, Capstone Paper, 2011

University of Pennsylvania Studio – Cost Benefit Analysis for High Speed Rail in the Northeast Corridor, City Planning Studio, 2011

Allyson Randolph – The Reinvestment Fund in Baltimore: A Model for CDFI Expansion. University of Pennsylvania, Master of Liberal Arts, Capstone Paper, 2009

Scott Zeigler – Identifying Housing Bubbles: An Analytical Approach. University of Pennsylvania, Master of Liberal Arts, Capstone Paper, 2008

John Culbertson – Microfinance. University of Pennsylvania, Master of Liberal Arts, Capstone Paper, 2007

## PAPERS AND PRESENTATIONS

*The Economic Value of Transit and the Effect of Insufficient Capital Funding – A Case Study of the Southeastern Pennsylvania Transportation Authority (SEPTA)*, 2014 Transportation Research Board Annual Conference, January 2014

*Consumer Response to Service Interruption on the Washington Metro*, 2014 Transportation Research Board Annual Conference, January 2014

Actual Value Initiative: Winners and Losers – presenter and panelist at Ballard Spahr Real Estate Continuing Education Program, Philadelphia, May 2013

Real Estate as Critical Infrastructure – presenter and panelist at NYU Stern School of Business Center for Real Estate Finance Research, Annual Spring Symposium, New York, April 2013

American Institute of Certified Planners – Certification Exam Refresh, Exam Question Writer, January 2013

Thinking Creatively About Infrastructure, *Region's Business Journal*, January 2013

Data Sources for Economic and Financial Information, New Jersey Redevelopment Authority Training Institute Seminar on Project Feasibility, December 2012

Why Does Affordable Housing Cost So Much To Build? And What Can Be Done About It? – panelist and presenter at the Housing Alliance of Pennsylvania, 2011 Homes Within Reach conference, Harrisburg, November 2011

Help or Hinder: How Local Government Helps or Hinders the Development of Affordable Housing – presenter and panelist at American Planning Association – Pennsylvania Chapter, 2010 Annual Conference, Scranton, October 2011

Drivers of Commercial Corridor Success: Lessons for Increasing Retail Performance – presenter and panelist at American Planning Association – Pennsylvania Chapter, 2010 Annual Conference, Lancaster, October 2010

Development Costs and Affordable Housing – presenter and panelist at New Jersey Governor's Conference on Housing and Community Development, Atlantic City, New Jersey, September 2010

Inclusionary Zoning and Financial Feasibility – presenter and panelist at “Homes Within Reach” conference, Harrisburg, December 2009

Response to Peter Brown’s book, *America’s Waterfront Revival, Port Authorities and Urban Redevelopment*, presented at Penn Institute for Urban Research, Philadelphia, September, 2009

Design Implications of Research on Commercial Corridors – Presentation to the Design Advocacy Group, Philadelphia, April 2009

Current Opportunities for Design Professionals – Presenter and panel discussant at “Survival Strategies for Design Professions”, sponsored by Powell Trachtman, March 2009

Predicting the Direct and Indirect Economic Impacts of the Stimulus Investments – Delaware Valley Regional Planning Commission, January 2009

Impact of President-elect Obama’s economic policies on Pennsylvania – Panel discussant Global Entrepreneurship Week, November 2008

Valuation of Intellectual Property – American Bar Association, International Law Section, and Intellectual Property in Asset Transactions: Buying What You Can’t See, May 2007

Securities Litigation Damages - class in Law and Economics course at The Wharton School, University of Pennsylvania, 2003-2007

Gauging the Impact of CDH Ps on Pharmaceutical Companies, Contingencies, American Society of Actuaries, March/April 2008

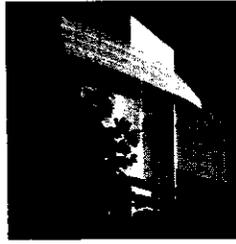
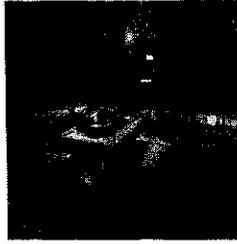
Calculating Damages in Intellectual Property Litigations – Advisory University, PricewaterhouseCoopers, 2005

Securities Damages Litigation – Advanced Topics in Damages – Advisory University, PricewaterhouseCoopers, 2004

Introductory Commercial Damages – Advisory University, PricewaterhouseCoopers, 2004

## **MEMBERSHIPS**

American Economics Association  
American Planning Association  
American Institute of Certified Planners  
Urban Land Institute



## Richard K. Gelber, AIA

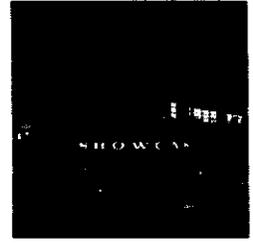
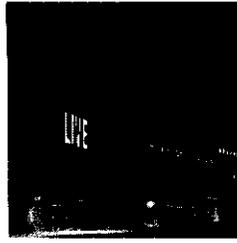
Richard has honed a unique skill in shaping sites and public spaces for people to congregate, shop, relax, debate and dine. "Among the joys of our practice," he says, "are repeat projects for our clients. They allow us to understand their business, and develop close personal relationships with them. We become managers and developers, shopkeepers and restaurateurs, teachers and many other things too. This rich experience keeps us fresh, and full of new ways to answer challenges."

A native Philadelphian, Richard holds both a Bachelor and a Masters of Architecture from Cornell University. He is a frequent speaker at the ICSC Centerbuild conference.

Outside of architecture, Gelber is an avid traveler, kayaker, and soccer coach. He combines historic city tours, shopping center visits, and world cup matches into rewarding foreign travels. Fluent in French, Richard is also able to say "I am lost, where is the best food" in eight or nine other languages.

Education	Cornell University, Master of Architecture, 1971 Cornell University, Bachelor of Architecture, 1969
Registration	Pennsylvania, New Jersey, Florida, Virginia, Vermont, Utah, Connecticut, Ohio, Georgia, Kentucky, Indiana, Oregon, North Carolina, Michigan, NCARB
Professional Experience	spg <sup>1</sup> , 1985 - present, Principal Cope Linder Associates, 1973 - 1985, Partner Schaffner/Gelber, Lausanne, 1971 - 1973
Major Professional Assignments	Philadelphia Zoo Centennial InterModal Master Plan Philadelphia International Airport Restaurant and Retail Program Asbury Park Master Plan and Pavilion Renovation, NJ Colonie Center, Expansion and Cinema, Albany, NY The Galleria, Urban Mall and Parking Garage, Ft. Lauderdale, FL Pavilion at the Court, King of Prussia, PA Rockaway, Livingston, and Deptford Malls, NJ Cinemas at Penn, University of Pennsylvania, PA Hamilton Square Parking Garage and Fresh Grocer, University of Pennsylvania Whole Foods Market and Parking Garage, South Street Philadelphia, PA Burlington Square Mall, Burlington, VT Muvico Parisian 20, Cityplace, West Palm Beach, FL Plaza Carolina, San Juan, Retail and Cinema, PR Hilton Head Factory Stores, Hilton Head, SC Commonwealth Corporate Center, Horsham Township, PA The Gallery at Market East, Philadelphia, PA Sesame Place, Bucks Town Center, PA Oakville Place, Ontario, Canada
Professional Memberships	American Institute of Architects Pennsylvania Society of Architects International Council of Shopping Centers Urban Land Institute
Teaching Experience	Lecturer, Paralegal Institute, Philadelphia Professor of Architecture, Swiss Federal Institute of Technology Lausanne, 1971 - 73
Honors & Awards	International Council of Shopping Centers Awards: Plaza Carolina, Westmoreland Mall Granite Run Mall, Eastland Mall Retail Architect of the Year, Construction Magazine AIA/Philadelphia Gold Medal for Sesame Place E. I. Eidlitz Memorial Traveling Fellowship PPG Industries/AIA Urban Design Fellowship





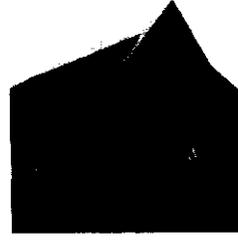
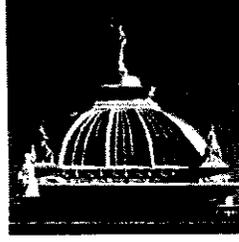
## Frank Russo, AIA, LEED AP, Principal

Frank was raised on the sand, surf and pristine beaches of Toms River, New Jersey. Recognizing the need to experience the more diverse culture of the urban environment, he put down his surfboard and moved to Philadelphia. He graduated with a Bachelor of Science in Architecture from Spring Garden Collage and later received a Master of Architecture from the University of Illinois at Urbana-Champaign. He joined spg3 upon his return to Philadelphia and was named a Principal in 2013. His professional experience is varied and ranges from residential rehabilitation projects to large-scale retail and entertainment projects across the States and within the United Kingdom.

Former resident in the Bella Vista neighborhood of the city with his wife and two young daughters, Frank is a devoted community servant who has volunteered as a board member on the Bella Vista United Civic Association. His varied design background has proven to be a valuable asset for the neighborhood Zoning Committee. He continues to be an advocate for responsible design solutions in an attempt to create a positive impact on the community and surrounding physical environment. Frank has also served the profession as an Executive Secretary of the Philadelphia Chapter of the AIA. He continues to serve the Chapter as Co-Chair of the Design on the Delaware collaborative conference which examines the issues and opportunities of the built environment across the region.

Education	University of Illinois at Urbana - Champaign Master of Architecture, 1994 Spring Garden College, Philadelphia, PA Bachelor of Science in Architecture, 1990
Registration	Pennsylvania
Professional Experience	spg <sup>3</sup> , 1994 - present Maria C. Romanach, Architect, 1990 Berdell Buckley, Architect, 1990
Major Professional Assignments	Sundance Cinema, Rivertowns Square, Dobbs Ferry, NY MarketFair Mall, West Windsor Township, NJ National Amusements, Cinema Delux, Ridge Hill, Yonkers, NY National Amusements, Cinema DeLux, Legacy Place, Dedham, MA National Amusements, Cinema DeLux, Patriot Place, Foxborough MA National Amusements, Broadmead 13 Cinema DeLux, Bristol, UK National Amusements, Eagle Centre 12 Cinema DeLux, Derby, UK National Amusements, Showcase Cinema DeLux, Florence, KY National Amusements, Showcase Cinema DeLux, Dedham, MA National Amusements, Showcase Cinema, Brockton, MA Rising Star Media - KinoStar DeLux, Moscow, Russia General Cinema Corporation @ Clifton Commons, Clifton, NJ The Ritz @ Rittenhouse Square, Philadelphia, PA Samuel T. Freeman & Company Auctioneers, Philadelphia, PA Lower Makefield Corporate Center, Lower Makefield, PA Bellevue Court Homes, Trenton, NJ
Professional Memberships	American Institute of Architects- Philadelphia Chapter Board of Directors, 2005-2007 Executive Committee Appointment Secretary, 2006-2007 Vice President, 2005-2006 CES Committee Co-Chair, 2005- present Design on the Delaware Conference Committee Co-Chair, 2006-present Building Enclosure Council Programs Chair, 2005- present
Community Service	The Center for Architecture, Philadelphia Secretary, 2006-2007 Vice President, 2005-2006  Bella Vista United Civic Association, Philadelphia, PA Board Member and Zoning Chair, 2002-2005 Friends of Cianfrani Park, Philadelphia, PA Member, 1996- present





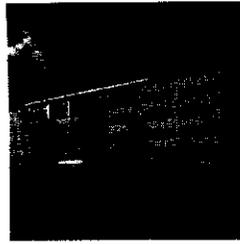
## Robert Cassway, AIA, NCARB

Bob Cassway founded Cassway-Albert over 40 years ago. His work includes buildings for Federal, State and City agencies ranging from flight simulators to government assisted housing and housing for the elderly. He has designed buildings across the United States and England. He has won more than two dozen national, state and local design awards. He has served on the board of the Pennsylvania Society of Architects and has served as president of the Philadelphia Chapter of the AIA.

Bob is devoted to community service. He has served as president of both the Delaware Valley Chapter of the Leukemia Society and Federation Housing. He has also served on the board of the Anne Frank House. In recent years, Bob has devoted himself to residential design including luxury market-rate and subsidized housing. He believes that every individual should live with dignity in well-designed housing.

Education	Master of Architecture, University of Michigan Bachelor of Architecture Engineering, University of Pennsylvania
Registration	PA, FL, NJ
Professional Experience	spg3, 2004 - Present Cassway-Albert Ltd. 1963 - 2004
Major Professional Assignments	Bordeaux Hall , Girard College, Philadelphia, PA Main Library, Philadelphia, PA Memorial Hall, Philadelphia, PA 908-910 Spruce Street, Philadelphia, PA 918-920 Spruce Street, Philadelphia, PA 905 Capital Street, Charleston, West Virginia The Regal, Chicago, IL Spring Lake Ambulance Building, Spring Lake, NJ Sarah Allen Housing for The Elderly, Philadelphia, PA Cook House, East Homes, NJ Oella Mills, Oella, MD Norres Triangle Housing, Temple University, Philadelphia, PA Bordeaux Hall, Girard College, Philadelphia, PA Chelsea, East Falls, Philadelphia, PA The Broadway, Milwaukee, WI
Professional Memberships	American Institute of Architects National Council of Architects Registration Board
Teaching Experience	University of Michigan Temple University
Honors & Award	Francisville Housing Competition, 1st Place, Philadelphia, PA, AIA Chapter 405 Capitol Street, Charleston, West Virginia, National Reconstruction Award Sarah Allen Senior Homes, Preservation Achievement Award Philadelphia Corporation for Aging Meal Distribution Center, Institutional Building Excellence Award The Old Fairgrounds Playground, Certificate of Merit, City of Allentown, Allentown, PA Assunpink Creek Park and Recreation Complex, Trenton, NJ Merit Award NJ Chapter ASLA and Merit Award PA/DE Chapter ASLA Logan Station Post Office, Philadelphia Chapter AIA, Honor Award Norris Triangle Student Housing, Temple University, Philadelphia Bordeaux Hall Girard College, Philadelphia, Pennsylvania Society of Architects Distinguished Building Award





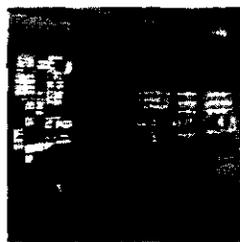
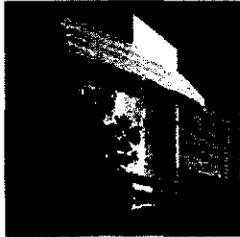
## William J. Petrauskas, AIA

Bill began his career as a part-time designer in an architect's office while studying industrial design at Philadelphia College of Art. After working as an art director for a packaging and trade fair exhibit design firm, he realized his true passion for architecture and returned to school. He moved to Manhattan, and received his architecture degree from The Cooper Union. He spent several years working in New York City before returning to Philadelphia to become one of the founding partners at spg3.

The combination of problem-solving training in industrial design with a rigorous theoretical background from The Cooper Union gives Bill a unique perspective on architecture and building. His desire for a well-crafted solution, appropriate to the client's needs and budget, has been realized in many successful projects over the last 22 years. His interest in and concern for people has led to many long and valued client relationships.

Education	The Cooper Union Bachelor of Architecture, 1979
Registration	New York, AIA, ICSC
Professional Experience	spg <sup>3</sup> , 1982 - present Mayers & Schiff Associates, P.C., 1979 - 1982 Cope Linder Walmsley, 1971 - 1973
Major Professional Assignments	2.0 University Place, Philadelphia, PA 1500 Locust, Philadelphia, PA (total interior renovation) 8200 Germantown Condominiums, Philadelphia, PA NAI Corporate HQ, Dedham, MA Sun National Bank Office Building, Atlantic City, NJ 1000 Continental Square, King of Prussia, PA 100 & 200 Tournament Drive, Commonwealth Corporate Center, Horsham, PA Sentry Parkway West Office Campus, Blue Bell, PA Union Meeting Office Building, Blue Bell, PA Lower Makefield Corporate Center, Buildings 2, 3, 4, Lower Makefield, PA IBM Branch & Regional Offices, NJ & PA Public Financial Management Corporate HQ, Philadelphia, PA PFM Corporate Offices, PA; NY; CA; FL; WA; OH; MN; TN The Promenade at Sagemore, Marlton, NJ Fresh Fields/Whole Foods Market, Philadelphia, PA Factory Stores @ Park City, Park City, Utah Timothy School, Berwyn, PA Myrtle Beach Factory Stores, Myrtle Beach, SC Hilton Head Factory Stores, Hilton Head, S.C. Cecil B. Moore Home Ownership Zone, Philadelphia, PA Abbotts Square, Philadelphia, PA Westbrook Factory Stores & Cinema, Westbrook, CT Lincoln City Factory Stores, Lincoln City, OR Aramark Design Solutions: University of Pennsylvania, Philadelphia, PA Main Line Adult Day Center, Bryn Mawr, PA Bryn Mawr Presbyterian Church, Bryn Mawr, PA Keshet Israel Synagogue, West Chester, PA
Teaching Experience	Guest Critic: University of Kentucky Pratt Institute, New York
Honors & Awards	Irwin S. Chanin Design Award, The Cooper Union





## spg3 Profile

**spg<sup>3</sup>** is a Philadelphia based architectural firm with an established reputation for service to its clients and innovation in planning and design. Celebrating our 35th year, **spg<sup>3</sup>** serves a client base of regional institutions and corporate leaders, national developers and retail innovators, community development organizations and affordable housing providers.

As architects of public places, we have a clear understanding of how people use and enjoy civic spaces, and what excites and motivates neighbors, guests and visitors to participate in community and City life. With a background working for developer clients, **spg<sup>3</sup>** brings a creative and disciplined focus to each project, matching programmatic requirements to budget limitations, and design goals to scheduling and approvals requirements.

**spg<sup>3</sup>** is a skillful project advocate. We are used to leading groups of administrators, students and board members; end users and advocacy groups, public stakeholders and review agencies to the successful completion of complex projects. As a committed team player, we have proved in that we fulfill our responsibilities, and support project leaders, to create a more successful project.

**spg<sup>3</sup>** provides architectural, site planning, interior design, landscape architecture and sustainable design services. As a 16 person practice, we have the necessary resources to commit all of the required design, management and experienced technical staff in support of the full range of responsibilities for Master Planning, Site and Landscape Architecture, and Mixed-use building design. Our commitment to building long-term relationships with our clients has resulted in a portfolio of successful repeat projects.



## spg3 Qualifications and Experience



As part of our urban mixed-use retail and entertainment projects, **spg<sup>3</sup>** has designed and constructed complex buildings in urban settings. The key to integrating any building into its urban neighborhood is to make the building compatible with its surroundings especially at the street level and in the main public facades. Pedestrian and vehicular circulation, on and off of the site, are also important concerns. While their design challenges and development goals are very different from each other, successful Philadelphia regional projects include:



- Penn's mixed use retail/garage at 40th and Walnut Street, part of the Hamilton Square project, where the University and the community sought a highly visible and iconic design to signal its commitment to the future of the western neighborhoods, and active food retail at the street.



- The Whole Foods Market on South Street with an almost invisible 250 space garage on two upper levels, designed to secure neighborhood support by blending seamlessly into historic setting; and
- The prototypical mixed use project in Philadelphia at Abbot's Square in Society Hill, with 300 residential condominium and retail space, and structured parking above and below the street level retail.



- The Centennial Intermodal project for the Philadelphia Zoo with, planning public transit, retail amenity and a new parking facility at the Zoo.

Recent project in the New York City area include mixed-use and entertainment work for current clients:

- The National Amusements Showcase Cinema in the mixed-use retail building at Ridge Hill, Yonkers, NY and the National Amusements Whitestone Cinema in New York City.
- The Dobbs Ferry Master Plan for Rivertowns Square, a new mixed-use retail/entertainment/hotel development along the Saw Mill Parkway.



## spg3 Qualifications and Experience



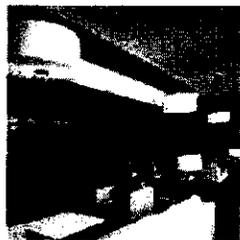
**spg<sup>3</sup>** works with national and regional shopping center developers such as Simon Property Group, and Madison Marquette to develop new projects and to reposition existing retail properties. Working for both the landlord and the tenant has given us unique expertise in understanding the impact of tenant requirements and prototypical plans on mixed-use design.



**spg<sup>3</sup>** provides specialty retail design, and food service consulting. Our experience includes multiple store roll-outs for national retailers like Luxottica and Ann Taylor, as well as recognized restaurant and book/music store groups including a series of stores for Barnes & Noble.

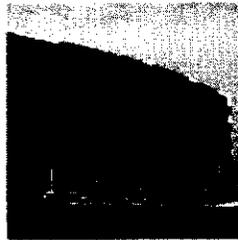


With MarketPlace Development, the retail and food service concessions lessee at Philadelphia International Airport, we are the architect for the public amenities and shopping places in the existing and new terminals. In this role, **spg<sup>3</sup>** is responsible for coordination of the work of the individual tenants' and the Marketplace work as Landlord, with the City's Division of Aviation, the public agency which owns and manages the Airport.



Another notable urban retail project is the redevelopment of the Galleria at Ft. Lauderdale, an urban mall constructed over two structured levels of parking along a main city boulevard. Our redesign tied the center back to the city by a new public entry plaza lined by restaurants at Boulevard level, and new access ways to additional structured parking behind the mixed-use project.

Our Landscape Architectural group has been designing brownfield public redevelopments for recreational and community activities for local municipalities including multiple projects for the City of Trenton.



## spg3 Qualifications and Experience

In the entertainment sector, our long-term relationship as National Amusement's architectural partner has included the design and construction of 20 multiplex theater/restaurant/performance complexes in the United States. With NAI, **spg<sup>3</sup>** has provided the programming, design criteria and interiors packages for international theaters in Great Britain, Russia and Argentina. These multi-function theaters include all of the programmatic and design challenges to be resolved in public theater and student center projects where patrons arrive as families and in large groups. Movement from public transit and parking, providing restrooms, ticketing, serving concessions and meals, and circulation of numbers of people at the same time are some of the challenges which must be addressed.

Founded as a housing and institutional practice, **spg<sup>3</sup>** has designed thousands of units of market rate and assisted housing for faith-based groups and public housing agencies, and for developers as part of mixed use urban projects. Significant office building developments, including at Continental Square and Lower Makefield are a part of our office development and interiors experience.

Committed to sustainable practices, **spg<sup>3</sup>** recently completed projects include BPG's LEED silver Continental Square corporate office building and parking facility in King of Prussia, PA and the first LEED silver building in Atlantic City, NJ.

We are highly collaborative organization, and skilled team players. We are retail, entertainment and mixed-use residential experts, used to difficult programs and challenging. We stand ready to bring that expertise to the project on the first day.

**We will listen to you!**



WILLIAM SCHWARTZ  
PRINCIPAL-IN-CHARGE

Bachelor of Science in Construction Engineering/Management, Massachusetts Institute of Technology

COMMUNITY INVOLVEMENT

University City District - Board of Directors  
The Shipley School - Board of Trustees

SUMMARY

As co-founder of INTECH Construction, Will Schwartz, along with his partner Craig "Sab" Sabatino, has built INTECH from its humble beginnings in 1986 into a dynamic force in the commercial construction industry. With an inherent sense of fairness, combined with a strong determination to deliver on promises made, Will is a hands-on "passionate principal." He takes an active leadership role, guiding the company to successfully meet project challenges, and maximizing value for our clients. As a first generation company, INTECH benefits from the ongoing vision, experience, and leadership strength of its original founders.

Strongly relationship-oriented, Will is motivated by personal integrity and the strength of his word. His resolute work ethic inspires others to do their best, while his down to earth personality earns him the respect and cooperation of peers, project teams, owners, and architects. Will's extensive experience constructing a wide variety of building types enables him to solve complex project issues, while his innovative nature encourages the exploration of possibilities. Through his commitment to creative problem-solving and an inclination toward collaboration and consensus-building, Will is dedicated to constructing high quality work, achieving project budgets, and implementing excellent design in the field.

INTECH is committed to ethical behavior as we contribute toward the economic development of our region. Central to our corporate responsibility is the importance we place on safety, diversity, community, and sustainability – goals that originate with the company's co-founders, and that strive for improvement in the lives of our workforce and the community at large. Through his personal philanthropic efforts, Will sets an example that inspires others in the company. INTECH has long-standing relationships with charitable organizations that provide assistance to groups in need; generous in his commitment to share the fruits of INTECH's labor through financial support, Will also recognizes that time spent can be even more valuable. He serves as an active board member of several organizations in Philadelphia, and also commits the resources of the entire company to a civic group or community through INTECH's annual Day of Service.

Clients who have worked with INTECH can attest to Will's dedication, commitment, and involvement in the daily activities of each job he oversees. Unique for a company owner in the Philadelphia region, he is an active Principal-in-Charge with a strong project focus, following projects through from Pre-Construction all the way to project close-out. Will has an understanding and attention to detail that establishes a standard of excellence for project teams. He effectively bridges client vision with construction realities, and continually looks toward improving INTECH's performance in project delivery, in support of our region, and in service to our clients.

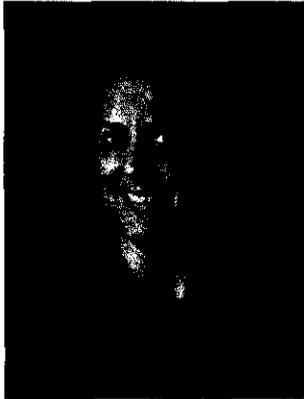
*You have read this proposal, reviewed, and that you accept it in full of its terms and conditions to build  
D'Zhek Barrow LLP, Philadelphia*

*Joseph D. Dreyfus, Esq. 1200 Locust Street, Philadelphia, PA 19107*



**THE HARMAN GROUP**  
structural engineering

**JANIS B. VACCA, PE, LEED AP**  
Vice President



**EDUCATION**

University of Delaware  
Bachelor of Science  
Civil Engineering, 1978

**PROFESSIONAL LICENSES**

Professional Engineer: Pennsylvania, New Jersey, Delaware, Maryland, New York

LEED Accredited Professional

**PROFESSIONAL AFFILIATIONS**

American Society of Civil Engineers (ASCE)  
American Concrete Institute (ACI)  
Delaware Valley Association of Structural Engineers (DVASE)

**PUBLICATIONS**

"Making Up for Lost Time," Modern Steel Construction, January 2013  
"Glass and Stainless Facade Renovation," STRUCTURE Magazine, February 2009  
"Precision Procedure," Modern Steel Construction, February 2004

**EXPERIENCE**

**The Harman Group, Inc., King of Prussia, PA:**  
Consulting Structural Engineers  
2006-present: Vice President, Principal  
2005: Senior Associate  
2001-2004: Associate  
2000-2001: Project Manager  
1992-1999: Senior Project Engineer  
Wirt-Vitabile Architects, Norristown, PA  
1990-1992: Chief Structural Engineer

**REPRESENTATIVE PROJECT EXPERIENCE**

**HOSPITALITY & GAMING**

**Revel Entertainment Hotel Casino Resort, Atlantic City, NJ**

A 5.8 million sf, 61-story hotel casino resort in Atlantic City New Jersey. The project includes a 700-foot-tall casino hotel with provisions for a second residential tower of the same height and a 1.5 million sf gaming and entertainment facility.

**The Borgata Hotel Casino & Spa, Atlantic City, NJ**

A 4.1 million sf hotel/casino complex including a 1.53 million sf, 44-story, 2,000-room cast-in-place/post tensioned flat plate concrete hotel tower; a 1.22 million sf, 4-story, steel frame low-rise with 175,000 sf casino; a 1.53 million sf, eight-level, 5,300-car parking structure; and an attached three-story area houses central plant/mechanical space, loading dock, employee services/office space, and various support spaces.

*Expansion*

A three-phase expansion to the Borgata, including the following: Phase I - North Expansion, a two-story expansion containing 314,500 sf of floor area and renovation to 20,000 sf in the existing complex; Phase II - Food Court, renovation of 16,000 sf of the existing motor coach area into a food court; Phase III - Spa Expansion, renovation of 3,000 sf of existing housekeeping office area into expanded spa facilities.

*Tower Expansion*

An 831,000 sf, 39-story hotel tower providing 755 guest rooms and 45 suites, conference amenities, retail space, a spa, and three pools.

*Multi-functional Ceiling Framing*

A multi-functional ceiling framing system for the casino area of a 4.1 million sf hotel/casino complex to serve as decorative ceiling, support rigging loads, support chandeliers, and function as working platform for trades working in ceiling area.

**PSFS / Loews Hotel, Philadelphia, PA**

*Renovations and Addition*

Renovations and alterations to a 560,000 sf, 35-story existing steel frame historic office building for conversion into a 600-room hotel including suites. Structural alterations include revisions to the lateral load system addition of elevators, escalators and other modifications to floor framing. The project also includes a new 100,000 sf, 4½ story addition to the existing building.

**Hyatt Regency Hotel at Penn's Landing, Philadelphia, PA**

A 250,000 sf, 340-room on cast-in-place post-tensioned concrete and steel frame hotel including restaurant, meeting facilities and tower along with a 200,000 sf six-level precast concrete parking structure for 600 cars.

**Ritz-Carlton Hotel Renovations, South Penn Square, Philadelphia, PA**

*Renovations, Alterations and Addition*

Renovations and alterations to the former Girard Trust Bank facility for conversion into a 360,000 sf luxury hotel complex featuring a 350-room hotel and conference center. The project includes the renovation of an historic rotunda constructed between 1902 and 1905 that serves as the hotel's main lobby.

**Trump Marina Hotel & Casino, Atlantic City, NJ**

*Tower Expansion*

A 360,000 sf, six-story steel frame ballroom and 14-story, post-tensioned concrete hotel tower.

**Philadelphia International Airport Marriott Hotel, Philadelphia, PA**

A 289,000 sf, 14-story hotel with a two-story ballroom, restaurant and meeting facility.



**THE HARMAN GROUP**  
structural engineering

**JANIS B. VACCA, PE, LEED AP**  
Vice President

J.B. Vacca, Collegeville, PA  
1989: Principal

Cagley & Harman, King of Prussia, PA  
1987-1989: Project Manager

Ammann & Whitney, Philadelphia, PA  
1985-1987: Structural Design Engineer

United Engineers & Constructors, Inc.,  
Philadelphia, PA  
1978-1985: Structural Design Engineer

**Hotel Expansion, Dover Downs, Dover, DE**

A 210,000 sf, ten-story hotel building expansion.

**Newark Liberty International Airport Marriott Hotel, Newark, NJ**

A 20,000 sf, one-story expansion to the existing hotel for a grand ballroom. The existing structure was modified at the transition to the expansion and in the lobby and meeting room.

**HIGHER EDUCATION**

**University of Pennsylvania, Philadelphia, PA**

*The Radian, Student Residence*

A 14-story student housing complex with approximately 163,000 sf residential floor area over first-floor retail and common space. Total floor area is approximately 237,000 sf.

**State University of New York, Dutchess Community College, Poughkeepsie, NY**

*Conklin Hall Student Residences*

Structural engineering services for the design of a four story, 135,000 sf cold formed steel, light frame modular structure that houses 465 beds in suites-style living with on-site dining, student lounge and activity facilities.

**Drexel University, Philadelphia, PA**

*Millennium Student Housing*

An 152,600 sf, 18-story architecturally significant residential building.

*Race Street Residence, Student Housing*

Design/build of a 120,000 sf, 12-story steel student housing facility.

*Dornsife Center*

Renovation and adaptive reuse of three existing buildings (two of which are historically certified) into a neighborhood research and support service center.

**Lackawanna Junior College, Scranton, PA**

*Classroom Facility*

Rehabilitation of a 120,000 sf, three-story historic masonry and stone classroom facility.

**Neumann College, Aston, PA**

*Student Housing – Phase II*

A 103,000 sf, three-story load-bearing masonry/wood truss student housing/activity center.

*Student Housing – Phase III*

Three-story, 61,300 sf precast plank on load bearing masonry residential building.

**University of Delaware North Campus, Newark, DE**

*Student Housing*

A 93,000 sf, five-building complex with precast concrete plank and load-bearing masonry with brick exterior, including two 28,000 sf, three-story special interest housing facilities to house 112 students each and three 16,500 sf, two-story precast concrete fraternity houses for 35 students each.

**Pennsylvania College of Podiatric Medicine, Philadelphia, PA**

*Health Center*

A 75,000 sf post-tensioned concrete health center with 14-story overbuild capacity.

**West Chester University, West Chester, PA**

*Recreation Center Building*

The West Chester University Recreation Center is planned as a 1-2 story, 69,000 sf facility for exercise, fitness and recreational use.



**THE HARMAN GROUP**  
structural engineering

**JANIS B. VACCA, PE, LEED AP**  
Vice President

**Gwynedd Mercy College, Lower Merion, PA**

*Student Housing*

A 62,000 sf, four-story precast plank and masonry residential building. This is Phase III of a campus student housing project, and it connects to the Phase II building.

**University of Scranton, Scranton, PA**

*McGurrin Hall*

A 81,000 sf, three-story steel frame classroom/office facility housing the College of Health, Education and Human Resources (CHEHR), containing 21 classrooms, 84 offices, 10 conference rooms, and 44 other rooms.

**Monmouth University, Long Branch, NJ**

*Joan and Robert Rechnitz Hall*

A three-story, 30,000 sf arts educational building, featuring a state-of-the-art visual arts space, classrooms, student lounge and faculty offices centered on a three-story gallery, as well as an archive storage area.

**Iona College, New Rochelle, NY**

*Classroom Building*

Structural engineering design for a new 15,000 sf, three-level modular framed (structural steel post and beam with concrete slab floors) academic building. The building is designed for dual use as a student housing building for 115 students.

**Cornell University, Ithaca, NY**

*Teaching Dairy Barn and Large Animal Teaching Complex*

A teaching dairy barn for 80 cows featuring a milking and holding area and a training/observation area, stall area and a viewing/classroom space overlooking the milking area.

**STUDENT HOUSING**

**University of Pennsylvania, Philadelphia, PA**

*The Radian, Student Residence*

A 14-story student housing complex with approximately 163,000 sf residential floor area over first-floor retail and common space. Total floor area is approximately 237,000 sf.

**Drexel University, Philadelphia, PA**

*Millennium Student Housing*

An 152,600 sf, 18-story architecturally significant residential building.

*Race Street Residence, Student Housing*

Design/build of a 120,000 sf, 12-story steel frame dormitory building.

**State University of New York, Dutchess Community College, Poughkeepsie, NY**

*Conklin Hall Student Residences*

Structural engineering services for the design of a four story, 135,000 sf cold formed steel, light frame modular structure that houses 465 beds in suites-style living with on-site dining, student lounge and activity facilities.

**Neumann College, Aston, PA**

*Student Housing – Phase II*

A 103,000 sf, three-story load-bearing masonry/wood truss student housing/activity center.

*Student Housing – Phase III*

A 62,000 sf, four-story hollow core concrete slab and load bearing masonry student residence facility, attaching to Phase II building.



**THE HARMAN GROUP**  
structural engineering

**JANIS B. VACCA, PE, LEED AP**  
Vice President

**University of Delaware North Campus, Newark, DE**

*Student Housing*

A 93,000 sf, five-building complex consisting of two 28,000 sf, three-story precast concrete and masonry special interest housing facilities to house 112 students each and three 16,500 sf, two-story precast concrete fraternity houses for 35 students each.

**Gwynedd Mercy College, Lower Merion, PA**

*Student Housing*

A 62,000 sf, four-story precast plank and masonry residential building. This is Phase III of a campus student housing project, and it connects to the Phase II building.

**K-12 EDUCATION**

**The Philadelphia High School for Creative and Performing Arts, Philadelphia, PA**

Renovations to an existing 60,000 sf, three-story iron and brick arch historic building, and a 100,000 sf, five-story steel frame addition including classrooms, studios, workshops, offices, and an acoustically designed 320-seat theater and stage area.

**Bala Middle School, Bala Cynwyd, PA**

*Addition and Renovation*

Renovation of 160,000 sf existing middle school and a 4,800 sf addition including gymnasium, cafeteria, and support spaces.

**Various Buildings (8 Total), Father Ryan High School, Nashville, TN**

A 160,000 sf high school campus facility, including 31,000 sf, two-story masonry bearing wall/wood truss/heavy timber cloister and chapel building; a 20,000 sf, two-story bearing wall/precast concrete deck/wood truss classroom building; a 33,500 sf, one-story gymnasium building; and site structures including two bridges and a reinforced concrete dam.

**Cynwyd Elementary School, Bala Cynwyd, PA**

*Classroom / Gymnasium Addition*

A 60,000 sf addition to an historic two-story elementary school, including gymnasium, classroom, and parking.

**Delbarton School, Morristown, NJ**

*Science Pavilion*

A new 27,000 sf, three-story steel frame classroom and laboratory facilities.

**Merryhill Country School, Multiple Locations: Calvine Road, CA; Stockton, CA; Sacramento, CA; South Natomas, CA**

A 14,500 sf, one-story wood frame structure including classrooms and offices.

**Millbrook Country Day School, Millbrook, NC**

An 8,000 sf, one-story wood frame structure including classrooms, day care center and offices.

**Chesterbrook Academy, Multiple Locations: Springfield, IL; Mallard Creek, Charlotte, NC; Washington Township, NJ; Great Falls, Loudoun County, VA; Portland, OR**

An 8,000 sf, one-story wood frame structure including classrooms, day care center and offices.

**Carefree Learning Center, Multiple Locations: Birmingham Township, PA; New Britain, PA; Exton, PA; Limerick, PA; Audubon, PA; Maple Township, PA**

An 8,000 sf, one-story wood frame structure including classrooms, day care center and offices.

**Lower Moreland Library, Lower Moreland, PA**

*Addition and Alterations*

A 7,500 sf, one-story steel frame addition to an existing 9,000 sf, four-story 1820s school building; includes interior renovations and alterations.



**THE HARMAN GROUP**  
structural engineering

**JANIS B. VACCA, PE, LEED AP**  
Vice President

**HEALTHCARE / PHARMACEUTICAL**

**Children's Hospital of Philadelphia, Philadelphia, PA**

*Expansion – Phase II*

A 10-story, 332,000 sf South Tower expansion to the existing building and interior renovations to 35,000 gsf of the existing structure above the expansion. The project includes vertical expansions and complicated connections to existing buildings, complex transfer trusses, suspended floors, and the reconfiguration to and expansion of an existing below-grade parking structure as well as seismic upgrades to the existing structure.

*Expansion – Phase III*

Phase III consists of two buildings – the nine-story Southwest Tower and the 12-story Northwest Tower – totaling 460,000 sf. Both feature complex transfer trusses, suspended floors, and complicated connections to the existing structure. The Northwest Tower has seven floors suspended from trusses above. Phase III also includes seismic upgrades to the existing structure and the relocation of the helipads.

**Children's Hospital of Philadelphia (CHOP) Princeton Special Care Center, Princeton, NJ**

A 25,000 sf, single story steel framed medical office building. The building is designed to accommodate both a future second story and 25,000 sf of horizontal expansion. The Project is pursuing LEED silver certification for all phases.

**St. Barnabas Medical Center, West Orange, NJ**

Structural Engineering services for a 180,000 sf new addition and parking structure to the hospital's west wing, which will include an outpatient surgery suite, an expansion to the current NICU unit, administrative services, as well as associated campus upgrades. The facility is being designed for future horizontal and vertical expansion.

**John L. Deaton Medical Center, Baltimore, MD**

A 160,000 sf; six-story cast-in-place concrete frame medical center.

**Schering Plough**

*S-11 Renovation, Summit, NJ*

The project consists of a renovation to an existing two-story research building containing approximately 113,500 gsf of floor area.

*Fitness Center Study, Kenilworth, NJ*

Studies for new construction or renovation for a 17,000 sf fitness center on the Kenilworth campus.

**Pennsylvania College of Podiatric Medicine, Philadelphia, PA**

*Health Center*

A 75,000 sf post-tensioned concrete health center with 14-story overbuild capacity.

**Frankford Hospital, Philadelphia, PA**

*Cancer Center/Medical Offices*

A 60,000 sf, three-story structural steel cancer center and medical office building.

**St. Mary Hospital, Langhorne, PA**

*Gigliatti Pavilion*

A 40,000 sf, two-story steel frame expansion to the existing facility containing patient floors and ancillary services.

**Chestmont Building, Pottstown, PA**

*MRI Feasibility Study*

Feasibility study for support of a new MRI in existing Chestmont Building.



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**CONTINUED CARE**

**Deptford Park Housing, Deptford, NJ**

*Apartment Building*

A 112,000 sf, seven-story precast concrete hollow core slab/load-bearing masonry apartment building for senior citizens on pile foundations.

**Berkshire Manor, Exeter Township, PA**

*Nursing Facility*

A 76,000 sf, two-story steel frame nursing facility.

**Sanatoga Manor, Pottsgrove Township, PA**

*Assisting Living Facility*

A 73,000 sf, three-story steel frame assisted living facility.

**Manatawny Manor, Pottstown, PA**

*Nursing Facility*

A 72,000 sf, two-story steel frame nursing facility.

**Lehigh Manor, Lower Macungie Township, PA**

*Nursing Facility*

A 72,000 sf, two-story steel frame nursing facility.

*Assisting Living Facility*

A 64,000 sf, two-story steel frame assisted living building.

**Countryside Manor, Glen Burnie, MD**

*Assisting Living Facility*

A 58,000 sf, three-story steel frame assisted living facility.

**Berkshire Manor, Exeter Township, PA**

*Assisting Living Facility*

A 56,000 sf, two-story steel frame assisted living building.

**Orwigsburg Manor, Orwigsburg, PA**

*Nursing Home*

A 50,000 sf, two-story structural steel nursing home facility.

**RESIDENTIAL**

**Hudson Lights at Fort Lee, Fort Lee, NJ**

Mixed use complex containing parking, retail, residential, office and hotel space. Phase I contains a one-story, 115,000 sf retail building and a ten-story, 640,000 sf retail, parking and residential building. Phase II contains a 17-story, 650,000 sf building containing parking, office, hotel and residential space.

**Residential Complex, Greenspring / Beazer Homes, MD**

A 1.17 million sf complex featuring six identical buildings. Each building is 156,000 sf, four-story non-combustible wood frame structure over 39,000 sf of parking, for a total of 195,000 sf.

**Waterfront Square Towers, Philadelphia, PA**

*Residential Complex*

A residential complex consisting of three towers and a parking structure with "green" plaza area. Tower 3 is 23 stories and 207,000 sf; Tower 4 is 35 stories and 332,000 sf; and Tower 5 is 39 stories and 302,000 sf. All feature cast-in-place concrete structural systems.

*Recreation Center*

A 19,000 sf, two-story steel-frame recreation center including indoor pool and spa as well as a 5,000 sf structured terrace as part of a significant residential complex.



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**Rock Hill Road Condominiums, Lower Merion Township, PA**

*Residential Complex*

A residential complex totaling 650,000 sf, including three four-story buildings of wood framed construction over two levels of concrete parking.

**3601 Market Street, Philadelphia, PA**

A 434,000 sf, 27-story mixed use residential building, including 50,000 sf of below grade parking, 38,000 sf of public amenities, 46,000 sf of terrace and gardens, and 300,000 sf of multi-unit residential space.

**Annapolis Town Center, Annapolis, MD**

A 394,000 sf, 12-story residential building with a 2,000 sf connecting bridge to the adjacent parking structure.

**Edgewater Apartments, Philadelphia, PA**

*Residential Complex*

A twelve-story, 320,000 sf apartment building over a one-story, 36,000 sf parking deck. Also includes independent five-level, 146,000 sf precast concrete parking structure, surrounded on two sides by four-story residential buildings totaling 43,000 sf.

**Waterford Town Homes, Philadelphia, PA**

*Residential Complex*

A 315,000 sf, five-story townhouse complex constructed on top of a 212,400 sf, 575-car, two-level parking structure with plaza floor area.

**Avera Station / Hunter's Branch, Fairfax, VA**

*Residential Complex*

A 475,000 sf residential complex featuring a four-story wood frame building over two levels of parking.

**Symphony House, Philadelphia, PA**

*Multi-use Residential Tower*

A 31-story, 290,000 sf residential condominium building with adjacent 31,000 sf performing arts theater and six-level, 153,000 sf parking structure.

**The Condominiums at 2 Liberty Place, Philadelphia, PA**

Adaptive reuse of 12 upper floors of the existing Two Liberty office building for 111 residential condominiums. Floor 38 was utilized as an amenity space. Modifications were also made to the ground floor lobby for elevators, floor infill and canopy.

**Landings at Harborside, Perth Amboy, NJ**

*Block 140B*

One component of a new 55-acre waterfront residential, commercial and recreational community, Block 140B is comprised of a four-story townhouse complex and two five-to seven-story multi-unit apartment buildings constructed on top of a two-level, below-grade parking structure. It encompasses 175,000 sf of residential floor area, 16,000 sf of supported plaza area, and 70,000 gsf of structured parking floor area including at grade parking within the structure.

*Block 236*

One component of a new 55-acre waterfront residential, commercial and recreational community, Block 236 consists of a four-story residential complex constructed on top of a two level parking structure. It contains approximately 106,200 sf of residential floor area, 20,000 sf of supported plaza area, 20,000 sf of retail, and 77,000 sf of structured parking floor area including at grade parking within the structure.



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**Residential Complex, Asbury Park, NJ**

A 345,000 sf residential complex comprised of three residential buildings of varying height from three to eight stories over structured parking, including a 23,000 sf structured plaza area and a 33,000 sf structured pool in the upper parking level.

**Hunter Village, Vienna, VA**

*Residential Complex*

A 342,000 sf, three-story wood frame residential complex.

**Lowe's Retreat, Loudoun County, VA**

*Residential Complex*

A 342,000 sf, five-building complex featuring 4/5 story split wood frame structure.

**Corinthian Condominiums, Bala Cynwyd, PA**

*Residential Complex*

A 323,000 sf, six-story cast-in-place Filigree concrete residential condominium building over 1½ levels of parking.

**Tivoli Condominiums, Philadelphia, PA**

*Residential Complex*

A 240,000 sf cast-in-place Filigree concrete condominium complex with varying heights of five and ten stories.

**Pulte Green Park Village, Wannaque, NJ**

*Residential Complex*

A 225,000 sf residential complex comprised of a 160,000 sf, four-story Hambro frame concrete slab system over a 47,000 sf parking garage; also includes a 19,300 sf clubhouse.

**Stonegate at Bellefair, Rye Brook, NJ**

*Residential Complex*

A 212,000 sf, three-story independent living facility.

**The Granary Apartments, Philadelphia, PA**

A 199,200 sf, nine-story concrete framed residential building. The project features 227 luxury apartments, over 20,000 sf of retail space, a fitness center, club room with an outdoor terrace, business center and underground parking for 87 cars.

**The Village at Annen Woods, Pikesville, MD**

*Apartment Building*

An 180,000 sf, seven-story, masonry bearing wall/precast concrete plank and masonry bearing wall housing facility.

**Drexel University, Philadelphia, PA**

*34th Street Student Housing*

An 152,600 sf, eight-story architecturally significant residential building.

*Race Street Residence, Student Housing*

Design/build of a 120,000 sf, 12-story steel frame dormitory building.

**Episcopal Cathedral Mixed-Use Development, Philadelphia, PA**

*28-story Mixed-Use Development*

A 150,000 sf, 28-story high-rise mixed-use development adjacent to the Episcopal Cathedral in Philadelphia, PA, featuring residential apartments, office, ground floor retail, additional facilities for the cathedral, and one floor of underground parking.

**2040 Market Street Apartments, Philadelphia, PA**

A 120,000 sf, eight-story vertical expansion over a six-story former office building which is being renovated into 282 units of one- and two-bedroom residential apartments with ground-level retail. The basement of the existing building has been converted into an



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underground parking garage to serve the building tenants. Two speed ramps were built to connect the streets with the garage below. The high ceilings of the basement level allow for the use of vertical car stackers to increase the number of spaces. The project also includes an adjacent 68,000 sf, 14-story horizontal expansion.

**Neumann College, Aston, PA**

*Student Housing – Phase II*

A 103,000 sf, three-story load-bearing masonry/wood truss student housing/activity center.

*Student Housing – Phase III*

A 62,000 sf, four-story hollow core concrete slab and load bearing masonry student residence facility, attaching to Phase II building.

**Deptford Park Housing, Deptford, NJ**

*Apartment Building*

A 112,000 sf, seven-story precast concrete hollow core slab/load-bearing masonry apartment building for senior citizens, on pile foundations.

**Seapointe Center, Wildwood Crest, NJ**

*Apartment Building*

A 96,440 sf, seven-story precast concrete apartment building including grade level parking.

**University of Delaware North Campus, Newark, DE**

*Student Housing*

A 93,000 sf, five-building complex consisting of two 28,000 sf, three-story precast concrete and masonry special interest housing facilities to house 112 students each and three 16,500 sf, two-story precast concrete fraternity houses for 35 students each.

**The Sansom, Philadelphia, PA**

A 91,500 sf, eight-story residential building featuring 104 residential apartments and ground floor retail.

**Sturbridge Waugh Chapel II, MD**

*Residential Complex*

A 71,000 sf, three-building residential complex comprised of three identical four-story wood frame buildings over parking. Contains 56,600 sf of residential space and 14,200 sf of parking.

**Gwynedd Mercy College, Lower Merion, PA**

*Student Housing*

A 62,000 sf, four-story precast plank and masonry residential building. This is Phase III of a campus student housing project, and it connects to the Phase II building.

**Victoria Falls, Prince Georges County, MD**

*Residential Complex*

A 56,000 sf, four-story, 18-unit residential building featuring non-combustible concrete slab structural system (Hambro). Six identical units are planned for the site.

**Orwigsburg Manor, Orwigsburg, PA**

*Nursing Home*

A 50,000 sf, two-story structural steel nursing home facility.

**Sanatoga Manor, Sanatoga, PA**

*Nursing Home*

A 50,000 sf, two-story structural steel nursing home facility.



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**Centex King's Farm, Rockville, MD**

*Residential Complex*

A 28,000 sf, four-story wood frame residential building, comprised of three residential floors and lower level parking.

**Westrum Townhouses, Philadelphia, PA**

*Residential Complex*

A 24,300 sf, three-story, 16-unit townhouse building.

**Bradford Walk, Farmington, VT**

*Residential Complex*

A 22,500 sf, two-story, five-unit wood frame residential complex with walk-out basement and 2,400 sf clubhouse.

**Calton Homes, Franklin Township, NJ**

*Residential Complex*

A three-story wood frame residential complex.

**Stewart Terrace, New Windsor, NY**

*Residential Complex*

A residential complex comprised of four units and two building types, featuring eleven buildings including a one-story, 3,375 sf clubhouse and one-story maintenance building.

**The Shores at Waters Edge, Belcamp, MD**

*Residential Complex*

A three-building residential complex comprised of identical four-story Hambro/wood frame walls over parking.

**Clifton Corporate Suites, Clifton, NJ**

Design and documentation of the Level 1 concrete Filigree structure supporting the four-story wood framed building above, as well as peer review of existing drawings.

**OFFICE**

**Vanguard Corporate Centre, Valley Forge, PA**

*Corporate Headquarters*

A 1.2 million sf corporate headquarters containing multiple three- and four-story composite steel frame buildings and multiple concrete parking facilities for 2,700 cars.

**Four Falls Corporate Center, Conshohocken, PA**

*Mixed-Use Complex*

A 700,000 sf, 12-story mixed-use project; post-tensioned flat plate, cast-in-place concrete including 300,000 sf of parking for 1,000 cars.

**Bayer Pharmaceuticals, Whippany, NJ**

*Corporate Headquarters*

Renovation and overbuild of an existing telecommunications building into a five-story, three-building corporate campus totalling 650,000 sf of office space. The buildings are connected by a five-story glass-wall atrium with a new five-story linking bridge structure.

**Rose Tree Office Park, Phase II, Media, PA**

*Office Building/300-Car Parking Structure*

A 275,000 sf, six-story precast concrete and structural steel office building over a 300-car parking facility.

**100 Tice Boulevard, Bergen County, NJ**

A 275,000 sf, three-story office building with basement.



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**Bahamas Financial Centre, Nassau, Bahamas**

A 270,000 sf, six-story post-tensioned concrete office building with integral parking for 250 cars.

**Princeton Overlook II, Princeton, NJ**

A four-story steel frame office building with one story of below-grade parking, enclosing approximately 182,000 gsf of office space and 36,500 sf of parking space.

**1000 Continental Office Building, Upper Merion, PA**

A 192,000 sf, six-story office building with basement.

**Commonwealth Plaza, Williamsport, PA**

*Office Building*

A 150,000 sf steel frame office building.

**Bristol-Myers Squibb, Lawrenceville, NJ**

*Building A3 Addition*

A 130,000 sf, three-story, steel frame office building with a 20,000 sf, one-story corridor.

**Three Country View, Malvern, PA**

*Office Building*

A 100,000 sf three-story steel frame office building.

**The Trooper Building, Trooper, PA**

*Office Building*

A 100,000 sf, three-story steel frame office building.

**Rossmoyne, Lower Allen Township, PA**

*Office Building*

A 80,000 sf, three-story steel frame office building.

**Pennsylvania College of Podiatric Medicine, Philadelphia, PA**

*Office Building*

A 75,000 sf, one-story (with 14-story overbuild capacity) post-tensioned concrete office building.

**Woodcrest Pavilion, Woodcrest, NJ**

*Office Building*

A 52,000 sf, four-story oval-shaped composite joist steel frame office building.

**Fentell, Voorhees, NJ**

*Office Building*

A 40,000 sf, two-story steel frame office building.

**NKS Distributors, DE**

*Corporate Headquarters*

A 40,000 sf, two-story steel frame office building.

**Cancer Center of Georgia, Atlanta, GA**

A 17,000 sf, two-story steel frame cancer diagnostic and treatment center.

**INDUSTRIAL / WAREHOUSE**

**NKS Distributors, New Castle, DE**

*Office/Warehouse Facility*

A 113,000 sf, one-story steel frame office/warehouse building.

**440 Creamery Way, Exton, PA**

*Flex Building*

A 60,000 sf steel joist/masonry bearing wall facility.



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**RETAIL**

**Sears at Eastland Center Mall, Harper Woods, MI**

Retrofit of an existing (circa 1975) 172,000 sf, two-story plus basement department store into a two-story Sears retail facility with an integral six-bay automotive center facility.

**Sears at Mills Mall, Pittsburgh, PA**

A 164,000 sf, one-story steel frame retail building.

**Deptford Crossing, Deptford, NJ**

*Retail Center*

A 110,000 sf, one-story steel frame retail center.

**Tweeter, Conshohocken, PA**

A one-story, 3,200 sf addition and structural modifications to remaining existing masonry walls.

**RENOVATION / REHABILITATION**

**The Philadelphia School for Creative and Performing Arts, Philadelphia, PA**

*Renovations and Addition*

Renovations and addition to existing 60,000 sf, three-story iron and brick arch historic building and a 100,000 sf, five-story steel frame addition including classrooms, studios, workshops, offices, and an acoustically designed 320-seat theater and stage area.

**2040 Market Street Apartments, Philadelphia, PA**

A 120,000 sf, eight-story vertical expansion over a six-story former office building which is being renovated into 282 units of one- and two-bedroom residential apartments with ground-level retail. The basement of the existing building has been converted into an underground parking garage to serve the building tenants. Two speed ramps were built to connect the streets with the garage below. The high ceilings of the basement level allow for the use of vertical car stackers to increase the number of spaces. The project also includes an adjacent 68,000 sf, 14-story horizontal expansion.

**The Stegmaier Building, Wilkes Barre, PA**

*Renovations and Alterations*

Renovations to a 60,000 sf 1890s historic brewery building and a 60,000 sf addition. This project is a creative reuse of the former Stegmaier Brewery buildings.

**Lackawanna Junior College, Scranton, PA**

*Classroom Renovations*

Rehabilitation of an historic 120,000 sf, three-story masonry and stone classroom facility.

**Phoenixville Foundry, Phoenixville, PA**

*Restoration and Alterations*

Renovations and alterations to an existing one-story historic industrial building for a 25,000 sf enclosure.

**Lower Moreland Library, Lower Moreland, PA**

*Addition and Alterations*

A 7,500 sf, one-story steel frame addition to an existing 9,000 sf, four-story 1820s school building; includes interior renovations and alterations.

**Unionville-Chaddsford Bus Maintenance Facility, East Marloborough Township, PA**

A 7,300 sf, one-story pre-engineered metal building with an attached two-story office/dispatch building; constructed with multiple phone contacts.

**Montgomery Hospital, Norristown, PA**

*Condition Survey of Six Exterior Building Façades*

Survey and report of six building façades to determine potential causes of distressed the deterioration and cracking of the brick and stone façades.



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**Trenton Fire House, Trenton, NJ**

*Conditions Survey*

Survey of existing conditions with recommendations for the repair and review of loading capacities for an historic firehouse in downtown Trenton, New Jersey.

**Mutual Assurance Co., Wistar Cadwalder Building, Philadelphia, PA**

*Floor Reinforcement*

Field investigation, evaluation and design for an historically significant building dating to 1740; rehabilitation and reinforcing of timber floor framing to support file storage loading, new floor openings and a new elevator.

**Free Library of Philadelphia, Philadelphia, PA**

*Various Branch Renovations*

Renovations to various branch locations.

*Façade Survey*

Façade survey of Walnut Street West branch.

**Gentex Optical, Inc., Carbondale, PA**

Investigation, survey, analysis and design of reinforcing for existing wood truss and beam/column structure.

**PARKING**

**The Borgata Hotel Casino & Spa, Atlantic City, NJ**

*5,300-Car Parking Structure*

A 1.533 million sf, eight-level, 5,300-car, precast concrete parking structure as part of 4.1 million sf hotel/casino complex.

**Trump Marina Hotel & Casino, Atlantic City, NJ**

*3,500-Car Parking Structure*

A 3,500-car, 1,000,000 sf, eight-level post-tensioned concrete parking structure.

**Vanguard Corporate Center, Valley Forge, PA**

*2,700-Car Parking Structure*

A 2,700-car, 900,000 sf multiple post-tensioned concrete parking structures.

**New Jersey State House Annex Parking Garage, Trenton, NJ**

*1,100-Car Parking Structure*

An 1,100-car, three-level, below grade post-tensioned parking structure to support New Jersey government's State House; atop the garage is a park/plaza for public use. This project also included the design and construction of a central utilities complex to support the entire Capital Complex. Due to highly sensitive nature of building, security measures were vital to successful design of structure.

**Four Falls Corporate Center, Conshohocken, PA**

*1,100-Car Parking Structure*

A 1,100-car, 300,000 sf, six-level post-tensioned concrete flat slab parking structure for an adjacent office complex.

**Convention Center Shops & Garage at Filbert Street, Philadelphia, PA**

*1,000-Car Parking Structure*

A 1,000-car, 320,000 sf, eight-level concrete parking structure with pedestrian level retail and provisions for vertical and horizontal expansion. Features pay-on-foot entry / exit.

**Chestnut Street Garage Replacement, West Chester, PA**

*800-Car Parking Structure*

An 800-car multi-level parking structure within the Historic District of West Chester



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Borough. Parking studies were performed within a multi-block radius in conjunction with monthly business commitments to confirm demands. Scope of services included a high level of public neighborhood meetings and distribution of information to the public via the Business Improvement District website.

**Schmidt's Urban Renewal, Philadelphia, PA**

*700-Car Parking Structure*

A 281,000 sf, six-story structure featuring five levels of parking for 700 cars and ground floor commercial retail space as well as a three-story fitness center along the southwest edge of the building.

**Avenue of the Arts Shops & Garage at 15th & Spruce, Philadelphia, PA**

*660-Car Parking Structure*

A 660-car, 240,000 sf, nine-level post-tensioned concrete parking structure with ground level retail. Features pay-on-foot entry / exit.

**Hyatt Regency Hotel at Penn's Landing, Philadelphia, PA**

*600-Car Parking Structure*

A 250,000 sf, 340-room on cast-in-place post-tensioned concrete and steel frame hotel including restaurant, meeting facilities and tower along with a 200,000 sf six-level precast concrete parking structure for 600 cars.

**Fisher's Restaurant, Bensalem, PA**

*560-Car Parking Structure*

A 560-car, 180,000 sf, two-level post-tensioned concrete parking structure.

**Philadelphia College of Podiatric Medicine, Philadelphia, PA**

*455-Car Parking Structure*

A 455-car, 100,000 sf, three-level post-tensioned concrete parking structure.

**Six Penn Center Renovations, Philadelphia, PA**

*450-Car Parking Structure*

A new 450-car, 82,000 sf, nine-level parking structure ramp. Project also includes renovations and alterations to an existing 400,000, 18-story steel frame office building, including complete internal demolition of walls and exterior walls.

**Matlack Street Garage, West Chester, PA**

*453-Car Parking Structure*

A 453-car, three-level, 149,000 sf precast concrete parking structure.

**Sharpless Street Garage, West Chester, PA**

*415-Car Parking Structure*

A 415-car, 3.5-level, 140,000 sf precast concrete parking structure.

**Bicentennial Garage, West Chester, PA**

*375-Car Parking Structure*

A 375-car, six-level cast-in-place parking structure with five levels of parking and ground level retail.

**Rittenhouse Hotel/Condominiums, Philadelphia, PA**

*326-Car Parking Structure*

A 326-car, 100,000 sf six-level post-tensioned concrete parking structure.

**Rose Tree Office Park, Phase II, Media, PA**

*300-Car Parking Structure*

A 275,000 sf, six-story precast concrete and structural steel office building over a 300-car parking facility.



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**SPECIAL INSPECTION**

**Vanguard Corporate Centre, Malvern, PA**

*Corporate Headquarters*

Inspection of rebar and post-tensioning tendon placement and composite steel and stud placement for a 1.2 million sf corporate headquarters containing multiple three- and four-story composite steel frame buildings and multiple concrete parking structures for 2,700 cars.

**Four Falls Corporate Center, Conshohocken, PA**

A 700,000 sf, 12-story office building with 1,100-car parking structure. Included inspection of reinforcing steel and post-tensioning tendon replacement.

**Trump Marina Hotel & Casino, Atlantic City, NJ**

*Tower Expansion*

Inspection of reinforcing steel and post-tension tendon placement for a 350,000 sf, 14-story hotel tower and six-story steel frame ballroom/convention area.

**Pennsylvania College of Podiatric Medicine, Philadelphia, PA**

A 7,000 sf, one-story (with 14-story overbuild capacity) post-tensioned concrete structure. Included inspection of reinforcing steel and post-tensioning tendon placement.

**Montgomery Hospital, Norristown, PA**

*Condition Survey of Six Exterior Building Façades*

Survey and report of six building façades to determine potential causes of distressed deterioration and cracking of the brick and stone façades.

**Trenton Fire House, Trenton, NJ**

*Conditions Survey*

Survey of existing conditions with recommendations for repair and review of loading capacities for historic firehouse in downtown Trenton, New Jersey.

**West Chester University, West Chester, PA**

*Condition Survey of 13 Exterior Building Façades*

Survey and report of 13 building façades to determine potential causes of distressed the deterioration and cracking of the brick and stone façades.

**New Hope Elementary School, New Hope, PA**

*Condition Appraisal*

Condition appraisal and recommendations for truss bracing after partial collapse of trusses during erection.

**Engines 39 and 50, Philadelphia, PA**

*Condition Appraisal*

Visual structural condition assessment to determine compliance with contemporary codes related to the building structural systems.

**Phoenixville Foundry, Phoenixville, PA**

Condition appraisal of an existing 1800s foundry building.

**Bryn Mawr Fire House, Bryn Mawr, PA**

Condition appraisal of the balcony and fire escape.

**GlaxoSmithKline, Building 8, Upper Merion, PA**

*Blast Containment Facility*

Condition review and strength assessment of existing concrete structure.

**1234 Market Street, Philadelphia, PA**

Condition appraisal of four-level, underground, steel frame concrete deck parking structure.



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**Avenue of the Arts Parking Structure, Philadelphia, PA**

*Inspection Services*

Post-tensioning inspection of multi-story parking structure.

**Colonial Theater, Phoenixville, PA**

Condition appraisal of wood-bearing brick, wood truss theater.

**Eight-Story Building, Broad & Federal Streets, Philadelphia, PA**

Condition appraisal of eight-story concrete framed building.

**Holiday Inn – Independence Mall, Philadelphia, PA**

Condition appraisal of seven-level, post-tensioned concrete parking structure.



Resume  
 Travis A. Alderson, P.E., LEED™AP, CBCP®  
 Principal

<b>EDUCATION:</b>	School: University of Pittsburgh; June, 2004 Degree: Bachelor of Science in Mechanical Engineering School: ASHRAE Air Conditioning & Refrigeration Design School Degree: Certificate of Completion for Two Year Program School: Certification in the Design of VFR HVAC Systems; March 2005. School: ASSE Plumbing Design School Major: Certificate of Completion for Two Year Program
<b>REGISTRATION:</b>	Pennsylvania - Professional Engineer # 076401 USGBC - LEED™ Accredited Professional AEE - Certified Building Commissioning Professional
<b>PROFESSIONAL AFFILIATIONS:</b>	ASHRAE, ASPE, ASSE, DVGBC, AEE
<b>WORK EXPERIENCE:</b>	With AEI: <span style="float: right;">Since 2004</span> With Other Firms: <span style="float: right;">0 years</span>
<b>PROFILE OF EXPERIENCE:</b>	<p>Mr. Alderson is the Managing Principal of Alderson Engineering, Inc. and is responsible for leadership and vision for the firm's growth initiatives. His wide range of projects include Office Buildings, Retail Projects, Education Buildings, Mixed-Use, and Healthcare Facilities. Some of his project highlights are noted below:</p> <ul style="list-style-type: none"> <li>American Metro Office Complex; Hamilton, NJ</li> <li>Oxford Valley Medical Office Bldg.; Langhorne, PA.</li> <li>Capital Grille Restaurant; Tampa, FL.</li> <li>Masonic Village; Lafayette Hill, PA</li> <li>Pennsylvania Turnpike – Data Center Upgrades; Harrisburg, PA.</li> <li>National Constitution Center; Philadelphia, PA.</li> <li>Northampton Fire Station; Northampton, PA.</li> <li>Wilmington Trust Bank; Villanova, PA</li> <li>British Airways Lounge; Philadelphia Int. Airport</li> <li>Peirce College; Philadelphia, PA</li> <li>HMS School; Philadelphia, PA</li> <li>La Comunidad; Kennett Square, PA (LEED™)</li> <li>Pennswood Village; Newtown, PA. (LEED™)</li> <li>Vertical Screen; Warminster, PA (LEED™)</li> <li>Oxford Community Center; Oxford, MD (LEED™)</li> <li>Kensington CAPA H.S.; Philadelphia, PA (LEED™)</li> <li>Kimpton Hotel Monaco; Philadelphia, PA (LEED™)</li> <li>1616 Walnut Street Residences; Philadelphia, PA (LEED™)</li> <li>Philly Fringe Performing Arts Theater; Philadelphia, PA</li> </ul>