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Carol and Dudley discuss the vital importance of errors and omissions coverage.

QUESTION: Many architectural firms feel if they don't have insurance they won’t be sued. What are your feelings on this?

ANSWER: "False economy allows them to think they can avoid liability by not having insurance. Design Professionals that design anything other than just houses -- well, it should be considered a cost of doing business."

QUESTION: How does an architect know which attorney to choose?

ANSWER: "An Architect ought to get a lawyer before he needs it. This way the lawyer will be familiar with the way he runs his shop. Also be familiar with any problems."

Ask other Architects who they use, ask your agent or insurance carrier.

QUESTION: A lot of architectural firms still do not use written contracts with the owner/client. What are your feelings on that?

ANSWER: "Always have written contracts with the owner. The owner can withhold payments; that's another very good reason for a contract."

Contact Carol Hiatt or Jack Welch at E & O Liability Consultants for any questions on liability insurance.
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For the renovation and additions to the Durham Arts Council, DePasquale Thompson Wilson Architects & Planners, Ltd. received a Merit Award.

Photo by Mark Weinkle
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In Celebration of Design

On April 20 and 21, North Carolina's architectural community joined in "A Design Celebration," a weekend in Charlotte filled with seminars, speeches and the bestowing of recognition and awards.

The man of the hour was clearly Murray Whisnant of Charlotte. In recognition of his sustained contribution to the modern movement in architecture, Whisnant was selected to receive the North Carolina Architectural Foundation's prestigious $10,000 Kamphoefner Prize. Moreover, his name was on two of the projects that won awards in the 1990 Design Awards Program of the North Carolina Chapter of the American Institute of Architects.

From 54 entries in the 1990 NCAIA Design Awards Program, three Honor Awards and six Merit Awards were granted.

Honor awards went to First Ward Elementary School in Charlotte by Morgan Adams Whisnant Collaborative, a design the jury found "vigorou and effective"; Shallowford Cliffs by Edwin Bouldin, Architect in Winston-Salem, noted for "marvelous clarity of vision"; and Northwest Regional Animal Disease Diagnostic Laboratory by Tashiro Associates/Inc. of Wilkesboro, "a powerful abstract composition."

The jury granted Merit Awards to a Renovation and Restoration of The Saint Mary Church in Wilmington by Allen, Harbinson & Associates, Architects, of New York City; Charlotte Radiology Office Building by Murray Whisnant/Architects of Charlotte; The Christian Science Reading Room in Raleigh by Bohm-NBBJ of N.C., Inc.; Parish Facilities for St. Andrew the Apostle Catholic Church in Apex, also by Bohm-NBBJ of N.C., Inc.; Renovations and Addition for the Durham Arts Council by DePasquale Thompson Wilson Architects & Planners, Ltd., of Durham; and Springs Corporate Guest Facilities in Fort Mill, S.C., by Yelverton Architects PA of Charlotte.

The jury was headed by Peter Forbes, FAIA, president of Peter Forbes & Associates, Inc., in Boston. Forbes has a master of architecture from Yale University and has served as a visiting professor to Harvard, University of Michigan and Catholic University in Rome. He was elevated to the College of Fellows, AIA, in 1982 and has received many honors on both the national and regional level of AIA.

Members of the jury were Charles Redmond, FAIA, a principal in Cambridge Seven Associates Inc.; Andrea P. Lees, AIA, a principal in Lees, Weinzapfel Associates, Architects, Inc.; Rudolpho Machado, a partner with Jorge Silvetti in Machado and Silvetti Associates, Inc., in Boston.

At the awards dinner, Curtis Hoffman Chi of Newton, a student at the N.C. State University School of Design, was given a Travelling Fellowship by the North Carolina Architectural Foundation, Inc. Chi completes his bachelor of environmental design this spring and will begin his fifth year in the fall to earn a bachelor of architecture degree. The Travelling Fellowship grants $3,000 for travel to students of architecture. Chi has elected to visit Finland because of his interest in modern Finnish design.

Of twelve students who submitted proposals this year, five advanced to the interview stage. The runners-up were Brian Bunce, a student at UNC-Charlotte, and Maria Katherine Hunt, Eppli Louis Pazienia, Dean E. Smith, all students at NCSU.

In addition to awards, the weekend also offered professional development — seminars in time management, preparing for the architectural registration exam, avoiding construction administration pitfalls and a design award discussion led by Peter Forbes; tours of Charlotte architectural offices and a sneak preview of the UNCC College of Architecture Building.

Murray Whisnant gets congratulatory applause. Curtis Hoffman Chi, an architecture student, gets a Travelling Fellowship, presented by Henry Johnston, AIA. Peter Forbes, FAIA, the chairman of the jury of the Design Awards Program, is flanked by Erica de Berry and Con Cameron, AIA.

Photos by Justin Peck
First Ward Elementary School
Charlotte
Morgan Adams Whisnant Collaborative
Charlotte

Client: Charlotte Mecklenburg Board of Education
General Contractor: Grant Construction Co., Charlotte
Mechanical and Plumbing Design: Professional Engineering Associates, P.A., Charlotte
Structural Engineering: Structural Engineers, Inc., Charlotte
Color and Sculpture: Jacqueline Heer, Charlotte
Photography: JoAnn Sieburg-Baker

Architect's Statement: This 40,400-square-foot project set a new standard for user participation within the Charlotte Mecklenburg school system. Beginning with a series of workshops to help teachers explore alternatives to closing their urban school, a revitalization movement grew until the school board agreed to fund a $2 million expansion and allow the school to select its own architects. The building design process included teachers, parents and students addressing difficult neighborhood needs and innovative programs in the arts. A consensus resulted in the design of a village grouping of art pavilions and walks. The pavilions included new program areas for the media center, art and dance areas and a multi-purpose room for community gatherings. The design included student works in ceramics, paintings and banners.

The economical pre-engineered structure, industrial materials and mechanical systems were exposed, encouraging students to read their school environment. Masonry at the base ends with insets for children's ceramic tiles. Sonotube columns frame the covered walkways and the monumental student commons connecting new and old structures. The project met a $51-square-foot budget and was ready for occupancy on time in fall 1989.

Jury Comment: This is vigorous and effective architecture, a powerful and joyous use of simple industrial elements celebrating their strength and permanence above their associative meaning. The buildings form a genuine place for people—neither quaint nor precious. It is tough but friendly.
Shallowford Cliffs
Pfafftown

Edwin Bouldin Architect, P.A.
Winston-Salem

Client: Dr. Lee R. Rocamora, Pfafftown
General Contractor: McNair Construction Co.
Mechanical, Plumbing and Electrical:
W.G. Robinson, P.E., Winston-Salem
Structural Engineering: Sutton-Kennerly & Associates, Greensboro
Photography: R. Jackson Smith, Winston-Salem

Architect’s Statement: This residence was designed for clients who wanted views of woods, lakes, pool and fireplace from each major living area and a food preparation area with maximum views of the wooded site. An open linear plan (living, dining, den and pool) allows direct and indirect views of terrain and elevated hearth. Mirrored doors and wall at the south elevation of the dining area allow all seated guests a direct or indirect lake view and, when open, a view through the nook/kitchen curtain wall. From the living room, the owner can view terrain, pool and tropical plant collection.

Aluminum is used as curtain wall framing, railing and balustrade at deck, clerestory framing and sheathing for audio-visual module and fireplace cylinder supports. An aluminum ceiling grid with plexiglass in the kitchen reflects the curtain wall module. The predominantly wood truss and framing system allows for uninterrupted spans and chase space in both floor and ceiling construction. The HVAC system has three separate zones; the pool area is controlled by a desert-aire system. The residence has a single-ply membrane ballasted roof.

Jury Comment: There is a marvelous clarity of vision here, from conception to execution; from parti to detail. The house is refreshingly modern, serene, elegantly sited, complex and beautiful.
Northwest Regional Animal Disease Diagnostic Laboratory
Elkin
Tashiro Associates, Inc.
Wilkesboro

Client: North Carolina Department of Agriculture
General Contractor: J S Clark Company, Inc., Mt. Airy
Plumbing, Mechanical, Electrical and Structural Engineering: DSA Group of NC, Winston-Salem
Photography: Gener Tashiro, AIA

Architect's Statement: The project was to design an agricultural research facility which expressed both its scientific purpose and its agricultural mission. A balance was sought between contemporary “high tech” imagery and the “barn” imagery indigenous to this area. The site was sloping and wooded, lending itself to a low-maintenance landscape concept suggesting pasture land. A large, grassed waterway was devised to handle extremely high storm water runoff from an adjacent shopping mall parking lot and roof. The loading dock where diseased animals are delivered addresses the access drive. Sun-shading and dark glazing on the south-facing facade imitate the dark voids of a real barn. A clerestory-truss recalls the large truss of the loading dock walls, consisting of utility brick with CMU back-up. The roof consists of wooden trusses with zinc-copper alloy roofing material. Floors are concrete slab.

Technical elements include a waste incinerator rated at 400 pounds per hour for burning large animal carcasses; a self-propelled crane with a two-ton capacity for transporting carcasses from the loading dock to the dissection table and to the storage and incineration devices; a hydraulically-operated necropsy table; extensive pipe and duct design in the laboratories with multiple acid and biological fume hoods; special closed-system wash-down devices for capturing potential contaminants at the loading dock.

Jury Comment: The building quite appropriately engages a strong rural/industrial image for a program with little formal precedent. However, more importantly, the architecture transcends this immediate farm building imagery to establish itself as a powerful abstract composition. The design works well and clearly says what it is.
Merit Awards

Charlotte Radiology Office Building
Charlotte
Murray Whisnant/Architects
Charlotte

Client: Charlotte Radiology
General Contractor: Jenison Associates, Charlotte
Structural Engineer: Chris Hope, P.E., Monroe
Electrical Engineer: Steve Haas Associates, Charlotte
Photography: Gordon H. Schenck Jr., Charlotte

Architect’s Statement: This financial center for a group of radiologists is located in a suburban office park. The building accommodates the owners’ wish to build in additional space for future expansion or lease on the lower level. Half of the present space is an open accounting office, and because this activity is intense and repetitive the area is designed to be spacious and light. It has high ceilings and exposed wood trusses converging into a south-facing clerestory. The building has a kitchen and dining area opening onto a dining courtyard bordered by a bosk of crepe myrtle trees. The “skin” of the building is stucco-veneered metal-stud curtain walls; the building’s “bones” are concrete columns and pre-fabricated wood trusses. In areas with exposed trusses, the lighting employs metal-halide uplights. Kalwall skylights are employed to introduce natural light to the basement level. On the exterior, the aluminum-framed storefront and the galvanized steel roof are Kynar finished. The wood-framed pergola is topped with corrugated fiberglass roofing and its latticework is planted with jasmine vines. Heating and cooling is by water-source heat pump.

Jury Comment: Careful attention to composing the outer wall and a unique roof structure in the major work space make this much more than an ordinary suburban office building. The long porch works well as an entry and, together with the louvered corner, present a handsome face to this building.

Parish Facility for St. Andrew the Apostle Catholic Church
Apex
Bohm-NBBJ of N.C., Inc.
Research Triangle Park

Client: The Roman Catholic Diocese of Raleigh
General Contractor: Clancy & Theys Construction Co., Raleigh
Structural Engineering: David C. Fischetti, P.E., Cary
Mechanical and Electrical Engineering: Jeffries & Associates, Inc., Raleigh
Landscape Architecture: LandDesign, Inc., Raleigh
Photography: Gordon H. Schenck Jr., Charlotte

Architect’s Statement: The program was to provide full facilities for an 850-family Catholic Church, including worship space with 750 seats, a chapel, fellowship hall, classrooms and administrative space for a total of 25,000 square feet. The concept was to organize a compound of house-like brick buildings around an open courtyard defined by a covered cloister. This space provides a link between the main entrances of the worship space, the fellowship hall and the chapel. The cloister also serves as the main entry to the church compound. The main worship space is constructed of intersecting gable house-forms.
made of exposed glue-laminated timbers and wood roof deck. Indirect natural light highlights the liturgical area of both church and chapel as well as the gathering space.

The church structure consists of glue-laminated wood trusses and concrete columns; glue-laminated wood roof deck with asphalt shingle roofing; spread footings, slab on grade; painted gypsum board walls; a forced air HVAC system.

Jury Comment: This is a handsome complex of sheds and pergolas, a convincing abstraction of vernacular architecture to construct a religious enclave: the barn transcendent. The integration of structure and symbolism is very fine and might be carried even further. What about a silo/campanile in Phase II?

Renovations and Additions for the Durham Arts Council Durham

DePasquale Thompson Wilson Architects & Planners, Ltd. Durham

Client: City of Durham
General Contractor: George W. Kane, Inc., Durham
Interior Design: Bell-Cline Associates, Durham
Structural Engineer: Hermon F. Fox, Greensboro
Photography: Mark Weinkle

Architect’s Statement: The project required improving the safety and structural capability of Durham’s Old City Hall, of local historic significance, enhancing 42,000 square feet of education space for nine arts-affiliates and an additional 10,000 square feet of functional support space. The most prominent addition, a 1,600-square-foot glass pavilion, satisfied the need for reception, dancing, box office, information and access to the upstairs theater lobby. Egress and noise problems were solved by adding exterior glass-sheltered stairs on the north and south sides, leaving open shafts for public toilets and pipe chases. Flanking the pavilion, terraced water features, indirect lighting and low-profile plant beds, along with the original granite steps, give an open uncluttered effect to the exterior and facilitate movement from the street to the main entry level.

The existing 1906 structure used exterior masonry bearing walls with wood-framed floors, interior wood-bearing partitions and wood-framed roof. All floor systems were reinforced with steel joists, girders and channels. The central portion of the building was gutted and clear-spanned with a steel and concrete composite floor for increased live-load capacity. Attic spaces were reinforced to house mechanical equipment, the roof extended and trusses exposed over the theater to complete the structural modifications.

Jury Comment: The strong and simple glass pavilion works well as a new frontispiece to the existing neo-classical building and serves as a viable gathering space at the entrance. The abstraction of the classical portico into a structural aesthetic presents a clear contrast to the historic building beyond.

Christian Science Reading Room Raleigh

Bohm-NBJ of N.C., Inc. Research Triangle Park

Client: First Church of Christ, Scientist, Raleigh
General Contractor: Marks-Barnes Builders, Inc., Cary
Structural Engineering: David C. Fischetti, P.E., Cary
Mechanical/Electrical/Plumbing: Omni Engineering, Raleigh
Photography: Gordon H. Schenck Jr., Charlotte

Architect’s Statement: The program was to provide a public bookstore and Christian Science Reading Room at a prominent and highly accessible downtown location and provide minimal support space for the volunteer staff. There was consideration of incorporating mixed-uses to achieve greater bulk and presence in the urban context, but the design evolved to clearly reflect the modest scale needed to house the client’s limited program. Thus, the reading room has been treated as a jewel-like pavilion set amongst its large commercial neighbors. A mezzanine was developed to add volumetric presence to the two-room building and, at the same time, to allude to historic library precedents. The building is designed to be viewed from above as well as at street level and to contribute to the urban streetscape.
Materials are spread footings, slab-on-grade; steel stud framing; split face concrete masonry with glazed tile exterior; painted gypsum board walls; standing seam metal and membrane roofing.

**Jury Comment:** There is a wonderful clear ordering geometry in this building, strongly expressed in the interior grid but also in the way that grid seems to permeate the building envelope. The jury questioned the introduction of a cross gable but found the planning and section idea for the narrow urban site excellent and convincing.

---

**Renovation and Restoration of the Saint Mary Church**  
**Wilmington**

Allen, Harbinson & Associates, Architects  
New York, N.Y.

Client: The Roman Catholic Diocese of Raleigh  
General Contractor: Clancy & Theys Construction Company, Wilmington  
Altar and Chairs: Nick Strange, The Century Guild, Research Triangle Park  
Chandeliers: Kent Bloomer and Kimo Griggs, Guilford, Conn.  
Processional Cross and Torches: Bruce Lindsey and Marilee Keys, Pittsburgh, Pa.  
Photography: Gerald Allen, Melva Calder, Richard Faughn

**Architect’s Statement:** The Saint Mary Church (1909–1911) is important to the history of American architecture because it is one of two buildings designed by the Rafael Guastavinos, father and son, manufacturers of thin and spectacularly strong masonry wall vaults. As contractors, the Guastavinos worked on most of the celebrated buildings of their day including Grand Central Station in New York and the Boston Public Library.

To restore and renovate the fabric,
the roof was sealed with EPDM materials and the inside of the vaulted ceilings and the brick walls were cleaned with conservative modern methods. The flooring was replaced and the pews refinished. A state-of-the-art sound system using low-volume, pew-back speakers on digital delays was installed, allowing the spoken word to be heard without compromising the excellent, naturally live acoustics. To the basic fabric (and removable from it) were added a series of embellishments: a new altar and presidents' chairs decorated with lilies (for the church's patron) and pine cones (for the Cape Fear Valley), a new and elaborate procession cross and torches, and 10 big chandeliers.

Jury Comment: This is an elegant solution to the difficult problem of making any intervention into an existing complete architectural statement. What has been accomplished is a refined and graceful counterpoint to the strength of the existing space. There is a thorough understanding that the smallest detail is a design problem worthy of the highest order of attention.

Springs Corporate Guest Facilities Fort Mill, S.C.

Yelverton Architects PA Charlotte

General Contractor: Andrew Roby, Inc., Charlotte
Plumbing and Mechanical Design: Morrison & Associates PA, Charlotte
Electrical Design: John Bolen & Associates, Charlotte
Interior Design: Barbara Strauss Cowan, ASID, Chicago, Ill.
Photography: Joseph Ciarlante

Architect's Statement: A major corporation desired to rehabilitate the 1872 house of its founder, along with its caretaker's cottage and carriage house, and construct two additional guest cottages to create a corporate guest facility for visiting executives. The founder's house, a two-story Second Empire, Italianate-style structure of masonry construction is on the National Register of Historic Places. It is across the street from the corporate headquarters on a large block of land that was landscaped to provide for the privacy and enjoyment of the guests and outdoor entertaining. When the project approached the two-thirds mark, fire nearly destroyed the founder's house. But careful documentation during the initial phases of the project made it possible to reconstruct the damaged and destroyed areas.

In the founder's house exterior millwork was replicated in redwood; original walnut millwork including doors, windows, balustrades and trim was replicated in walnut. Other millwork, originally "grained" and later painted, was replicated and re-grained. The caretaker's cottage was restored for use as a library, with a new porch. The carriage house was rehabilitated for use as a laundry and caterer's staging area. The new guest cottages were designed as background buildings of the "low country style" to blend with existing structures.

Jury Comment: This is a remarkable rescue of an architectural ruin. The architects handled the rebuilding and restoration with sensitivity and imagination—either well researched or reinvented—and have avoided cloying historicism in the new outbuildings.
The Kamphoefner Prize

Murray Whisnant, AIA, a student of the late Henry L. Kamphoefner, has won the second $10,000 Kamphoefner Prize for sustained contribution to the modern movement in architecture in North Carolina.

Whisnant's designs have been recognized by regional and chapter AIA awards programs, including an Honor Award and a Merit Award in this year's NCAIA Design Awards competition. His designs also have been recognized by the architectural press and art publications.

The Kamphoefner Prize, named for the founder and dean of the N.C. State University School of Design, is sponsored by the North Carolina Architectural Foundation Inc., a foundation affiliated with the NCAIA. The prize is the only one of its kind awarded at the state level; it is similar in concept to the national Pritzker Prize.

Whisnant's work has embodied the principles that ignited Kamphoefner's teaching.

"He stands out within the profession for having an intensely design-related practice, as opposed to practicing solely in a business manner, for profit," said Ligon B. Flynn, chairman of the committee of six that selected Whisnant. "In a sense, he truly represents what the Kamphoefner school of regional design was all about."

The Kamphoefner Prize was established in 1988 to recognize architects who have taken a consistently modern approach to architectural design over a period of at least 15 to 20 years. Kamphoefner donated the money for the first prize. J. Norman Pease Jr., FAIA, of Charlotte was the recipient of the first Kamphoefner prize. When no recipient was selected in 1989, Kamphoefner determined that in the future, when no award was given, the money would fund two travelling fellowships for students of architecture.

When Kamphoefner died in February, he left a portion of his estate to the foundation and generously endowed the prize so that it may continue to be given.

Whisnant, of Murray Whisnant/Architects in Charlotte, was nominated by Marley P. Carroll, FAIA, with
Odell Associates. Carroll wrote: “Opting for the design studio organization for practice and the intensely personal approach to design which that organization allows, Murray Whisnant has for 25 years been a model for the region’s architects and students who understand that architecture is an art and may be practiced fully and completely with all the details of building, landscape, signage and furnishings integrated into a single expression of place and purpose. His designs are at once serious, witty, perfectly functional and beautiful. Each project, small or large, is seen by Murray as an obligation to the client, to society and to himself to provide complete service and to find the design that works at every level.”

Whisnant has said, “I do signage, logos, T-shirts, client birthday cards (and some of our best work on restaurant napkins), furniture and bumper stickers.”

That Whisnant shared Kamphoefner’s view of certain architectural trends today is evidenced by a recent article he wrote for The Charlotte Observer.

“ ‘So here we are, awash in acres of thin marble veneer, and other ‘fine’ finishes, glued, sprayed or stapled on, often in hopes of covering up a poverty of concept. . . . Let’s be fair, though, you can’t accuse post-modern of lacking pomposity. All right, it’s a sham, but at least it tries.”

Whisnant designs include his own house in Charlotte (photo by Gordon H. Schenck Jr.); offices for Pentes Design, an industrial design firm in Charlotte (photo by William Morez); a Christmas card for the NCSU Poultry Science genetic research department—featuring Big Red, a huge chicken who escaped from an unlocked lab door to celebrate his first Christmas; and a bas relief entitled “Swansong” made from TV dinner containers. “I ate every one of them,” Whisnant said.

“Unfortunately for us in these environs, the pomposity and collections of symbols from an imagined illustrious past plays particularly well with the Southern inferiority complex and post-modern will likely thrive like kudzu in Southern soil.”

Whisnant’s significant work includes the Civil Engineering Building and the Poultry Science Research Center at N.C. State in Raleigh; the School of Law Building and Rowe Arts Center at the University of North Carolina at Chapel Hill; St. John’s Inn in Myrtle Beach, S.C.; Lake Surf condominiums in Pinehurst; and a host of buildings in Charlotte, including the Mecklenburg County Office Building, Providence Medical Center, Randolphs Medical Office Building, American Red Cross Chapter Offices and Blood Center, NCNB National Bank branches, Pfister Chemicals, Inc. office building, Carmel Junior High School, McDonald’s Hamburgers at Overstreet Mall, White Horse Restaurant and many others.

Whisnant’s own residence won the Architectural Record Award of Excellence for House Design; he was listed as one of the top 50 architects in America by Town and Country magazine in 1979 and appeared in Art in America’s annual issue on new talent in America.

Regarding Whisnant’s work, Carroll wrote: “The result is a limited number of extraordinarily beautiful, expressive buildings, evidence of a career in the art of architecture. The standard Murray’s practice sets is important when there are lots of available excuses for bad design and where good design is often seen as possible only for high-budget prestige projects.”
1990 Entries

INSTITUTIONAL BUILDINGS

1. Revitalization of the Tucker Carriage House, Raleigh
   Clearscape Architecture, Raleigh
2. Brooks Hall Rotunda, NCSU, Raleigh
   Odell Associates, Inc., Charlotte
3. Theatre/Auditorium, Louisburg College, Louisburg
   Dove-Knight and Associates, PA, Rocky Mount
4. UNC-Asheville Student Residence Hall, Asheville
   Padgett & Freeman Architects, PA, Asheville

INSTITUTIONAL BUILDINGS

1. Southwest Elementary School, Durham County  
   DePasquale Thompson Wilson Architects & Planners, Ltd., Durham

2. Student Dormitories, Phase V, UNC—Charlotte  
   Gantt Huberman Architects, Charlotte

3. Performance Place, Winston-Salem  
   Calloway Johnson Moore, PA, Winston-Salem

4. White Oak High School Addition, Jacksonville  
   Robert N. Shuller, AIA, Fayetteville

INSTITUTIONAL BUILDINGS
1. Natural Resources Research Center, NCSU, Raleigh
   Jenkins-Peer Architects, PA, Charlotte
2. Githens Middle School, Durham County
   DePasquale Thompson Wilson Architects & Planners, Ltd., Durham

COMMERCIAL BUILDINGS
3. Moore Square Station, Raleigh
   PDA, Raleigh
4. Commercial Rehabilitation, Mooresville
   Yelverton Architects, PA, Charlotte

COMMERCIAL BUILDINGS

1. South Cary Wastewater Treatment Plant, Apex
   Piedmont Olsen, Inc., Raleigh
2. Gita Sporting Goods, Inc., Charlotte
   Meyer·Greeson, PA, Charlotte
3. Watauga District Office, Blue Ridge Electric, Boone
   CBSA Architects, Hickory
4. Lexington Furniture Showrooms, High Point
   J. Hyatt Hammond Associates, Inc., Greensboro

OFFICE BUILDINGS

1. Rotunda, Charlotte  
   Clark Tribble Harris & Li Architects, PA, Charlotte

2. Office Building/Manufacturing/"Signart," Charlotte  
   Murray Whisnant/Architects, Charlotte

3. WestChase Two, Raleigh  
   Jenkins-Peer Architects, PA, Charlotte

4. Springs Company Corporate Offices, Lancaster, SC  
   Lee Nichols, Charlotte

OFFICE BUILDINGS

1. Bank of Mecklenburg, Charlotte
   Little and Associates, Architects, Charlotte

2. 100 East, Milwaukee, WI
   Clark Tribble Harris & Li Architects, PA, Charlotte

3. Arboretum Professional Park, Charlotte
   David Furman/Architecture, Charlotte

4. Office Building, Winston-Salem
   Edwin Bouldin Architect, PA, Winston-Salem

**CHURCHES**

1. Orange United Methodist Church, Chapel Hill  
   Bohm-NBBJ of NC, Inc., Research Triangle Park

**PUBLIC BUILDINGS**

2. Mecklenburg County Vietnam Veterans Memorial, Charlotte  
   Little and Associates, Architects, Charlotte

PUBLIC BUILDINGS

1. Renovation of an Abandoned School Building Complex, Hickory
   CBSA Architects, Hickory
2. YWCA, Winston-Salem
   Edwin Bouldin Architect, PA, Winston-Salem
3. City of Kinston Public Service Complex, Kinston
   The East Group, PA, Kinston
4. Durham Women's Clinic, Durham
   O’Brien/Atkins Associates, PA, Research Triangle Park

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   Peterson Associates, PA, Raleigh
2. Rex Wellness Center, Raleigh
   Peterson Associates, PA, Raleigh
3. Stanly County Agricultural Center, Albemarle
   The East Group, PA, Greenville
4. Farmville Municipal Building, Farmville
   The East Group, PA, Greenville

Photography: 1, 2. Tim Buchanan with Rick Alexander & Associates; 3, 4. Dewane Frutiger
PUBLIC BUILDINGS

1. United Community Services, Charlotte  
   David Furman/Architecture, Charlotte

2. Charlotte-Mecklenburg Government Center, Charlotte  
   J.N. Pease Associates, Charlotte

3. Western Carolina Gastrointestinal Associates Building, Asheville  
   R.S. Griffin, AIA, Asheville

4. The Charlotte Coliseum, Charlotte  
   Odell Associates, Inc., Charlotte

RESIDENCES

1. Celo Mountain Residence, Celo
   Hal Tribble Architects, Charlotte

2. Providence Place, Brandon, FL
   David Furman/Architecture, Charlotte

3. Old Buckingham Station, Midlothian, VA
   David Furman/Architecture, Charlotte

RESIDENCES

1. Mann Residence, Figure Eight Island, Wilmington
   Henry W. Johnston, Architect, Wilmington

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   Meyer-Greeson, PA, Charlotte

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LEGISLATIVE REPORT

Rooftop Reflections

Every building has to have a roof, and some members of the North Carolina General Assembly have argued that all roofs should have a pitch. Under consideration are proposals to require that the roofs of certain public building types, such as schools, have a minimum of 2 inches of slope for every foot of roof. North Carolina Architecture invited several architects and members of the roofing industry to discuss the implications of such proposals for the building industry.

John F. Thompson, AIA, of DePasquale Thompson Wilson Architects and Planners Ltd. in Durham served as moderator of the panel. Participants were D. Delmas Adams, AIA, CSI, of J.R. Morton, a marketing agent and distributor for several roofing companies; Felix D. Markham IV, AIA, staff architect with Duke University's design construction department, John M. McCall III, a commercial roofing specialist for Owens/Corning Fiberglas; James E. Pickard III, president of Pickard Roofing Company, Inc. of Durham, a roofing contractor; Bob Pollard, senior field representative for W.F. Hickman Systems Inc., of Clemmons; W. Tobin Savage, AIA, vice president of Haskins, Rice, Savage & Pearce, P.A.; Walter Vick, AIA, president of The LSV Partnership of Fayetteville; Alva H. Ward III, AIA, principal of Ward Associates, Architects in Wilmington.

Delmas Adams: Two-in-12 is a no man's land. It eliminates many excellent products. It's too steep for some, too low for others, both from the standpoint of material performance and codes.

Alva Ward: The 2-in-12 slope is a bastard slope if there ever was one. On a built-up roof, it would require all the felts to be backnailed and would complicate attaching insulation, which would add expense. For a shingle or metal roof, the 2-in-12 slope is simply not adequate. Many public buildings have very large roof areas, which would make using a 2-in-12 roof slope all but impossible. It would be fraught with technical problems, rather strange to look at and obviously more expensive. The building profession does not need to be handcuffed with this kind of naive legislation.

John F. Thompson: There are current legislative initiatives to mandate public building design by requiring certain building types to have a minimum roof slope of 2 inches per foot. What restrictions would this place on the use of some roofing materials and assemblies?

Walter Vick: Obviously the roof slope can limit the choice of substrate and roof membrane, which in turn will affect the availability of approved UL assembly. Two in 12 does not eliminate a built-up roof, although there is some sense that is the goal of the initiatives. And it's too low for shingles. They might as well make a law that says, "Roofs shall not leak." That's what they are trying to get at, but they are going at it backwards.

Bob Pollard: I don't have any problem with a mandated slope in a roof, but 2 inches per foot is excessive. In the past, AIA, NRCA and MRCA have all agreed that a minimum slope is good; they agreed on a quarter-inch per foot, and perhaps a half-inch would be better. If you increase the slope to 2, we run into UL rating problems. Obviously the cost of the whole project goes up if you increase the slope to that degree.

Felix Markham: The problem when we start mandating that much slope is that it increases the volume of a building. It also affects the height of masonry walls, the labor costs and the cost of the design. So when you talk about a roof, you are talking about interaction with other systems in the building and potentially higher costs.

Are there potential problems inherent in roof design, UL and FM ratings and other criteria if steep slopes are required?

John McCall: There are many potential problems inherent in roof design, UL and FM ratings and other criteria if steep slopes are required. It's important to consider the overall performance of a roof system, including factors such as drainage, wind resistance, and durability. Additionally, the cost and maintenance of steep roof systems may be higher compared to shallower systems.

AIA: The AIA recommends a minimum slope of 3:12 (1/3 inch per foot) for flat roofs and 4:12 (1/4 inch per foot) for steep roofs. This slope allows for proper water drainage and helps prevent ponding of water on the roof. However, steeper roof slopes may pose challenges in terms of installation, maintenance, and aesthetics.

Bob Pollard: The slope of a roof is a critical factor in terms of drainage and water management. A steeper slope can help prevent ponding of water on the roof surface, reducing the risk of roof failure. However, steeper slopes can also pose challenges in terms of installation and maintenance, requiring specialized tools and techniques.

Felix Markham: The choice of roof slope should be based on a thorough evaluation of the building's needs, the local climate, and the available materials. A steeper slope may be appropriate for buildings in high-wind or high-snow regions, but it should not be mandated without careful consideration of the potential drawbacks.

Delmas Adams: The selection of roof slope should be guided by an understanding of the building's functional requirements, the risk of water accumulation, and the overall design goals. Mandating a specific slope without accounting for these factors could lead to suboptimal roof designs and performance issues.
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Felix D. Markham, AIA

Tobin Savage: Traditionally, buildings were smaller and their functions were simpler, and you could put in a sloped roof and not create difficult flashing problems or construction problems or unusable volume. But so many buildings now are large and functionally complex. To dictate that a certain type of roof should be used on them is going to create major problems. You could have as many leaks with a complex roof with many hips and valleys and complex ridges as you could with a flat roof if you don’t do it properly.

Pollard: From a manufacturer’s viewpoint, most of the FM and UL ratings that are in place now might not be appropriate for that steep a slope, which means that the manufacturer has to pay for retesting. That’s not cheap, and you don’t do it overnight.

Markham: When you go to that kind of slope, you just change the nature of the problem—from the leaky roof to problems at the perimeter. You’ve obviously got a built-up head of water that you now have to deal with on the edge. We all know the age-old problem with flashings of the perimeter system.

Adams: With a 2-to-12 magnitude of pitch, you frequently get the wind pushing the water back up the roof and wicking back under the system, getting into the holes and leaking.

“I don’t have any problem with a mandated slope in a roof, but 2 inches per foot is excessive.”

Bob Pollard
“When you talk about a roof, you are talking about interaction with other systems in the building and potentially higher costs.”

Felix Markham

Markham: Each roof is different. There are situations where a steep slope won’t work. I just don’t think it’s right to mandate what a particular design might be. That should be left up to the professional.

James Pickard: If this legislation is coming about because of past failures with flat roofing systems, I think they should look at problems with the way contracts are selected and the quality of systems or the way the specifications were written up. I don’t see a problem with built-up or low slope roofs per se. I think the products we have to work with can certainly render a long and durable roof if put on properly. But I don’t think the low-bid system always yields the best contractors; in fact, I think it runs some of the better contractors away.

John McCall: Owens/Corning’s stance is that roofs should be designed with a positive drainage, period. We don’t think any roof should be designed to hold water, but a 2-inch minimum slope is not the answer. Good roofing design is getting the water off the roof. And a quarter-inch-per-foot slope is certainly adequate to do that.
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The panel also discussed past problems in roofing design and installation that have led to some roofing failures. They pointed to the once-common practice of using dead-level roofs, on which water was allowed to pool; poor workmanship and damage done to membranes by equipment and fluids during construction; and the occasional practice of marketing new products before they were adequately tested.

"The industry got in dutch," McCall said, "when the old organic felt manufacturers had to reuse their processed water in an attempt to help the pollution problem. That’s when we saw the quality of the organic felts start to deteriorate—that coupled with single-ply, which we think was a real mistake and put the industry on its ear and allowed for all these other concepts on the market."

According to Adams, "another factor that came into play, particularly when we really began to play with flat roofs, was the change from rigid concrete structural systems to bar joists and metal decks, which tend to move around quite a bit more and can create splits in the roofing systems. That’s what led to some of the hybrid systems we see today, like modified pitch and flexible systems such as single plys."

"Structural movement and thermal expansion contraction are the trickiest

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"Two inches of slope per foot is a no man’s land. It eliminates many excellent products. It’s too steep for some, too low for others, both from the standpoint of material performance and codes."

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Alva Ward

things to design around and recognize in a structure," Savage said. "If you are going to have problems, many times it will be around the edge or around joints, where movement occurs. And the more complicated the building, the more complicated that becomes."

Many roofs have failed, several panelists noted, simply because they were not properly maintained. "None of us has control over that," Adams said, "and yet it's a very significant factor in the life of a roof."

The future holds promise for longer-lasting, better-quality roofs. A certification and warranty program now in effect means better workmanship and more involvement on the part of the roofing manufacturer.

"It forces the manufacturer to look at the substrate, whether it's an existing building or a new building, and to become more involved," Markham said. "He's responsible for that substrate. In the past, he was a party way out there, and we were relying on the designers to use the system as they felt was appropriate."

Materials and systems have improved. "There's a trend toward com-
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Tobin Savage

"...combining the benefits of single-ply, and there are some, and the benefits of built-up roofs, which there are some," Pollard said. "They take advantage of redundancy and waterproofing and give you increased tensile strength."

In addition, he said, modified and rubberized asphalts have better low-temperature flexibility, elongation and adhesion. New fiberglass and polyester felts perform better. And new roofing systems are often easier to maintain than past systems.

But challenges persist, including environmental concerns, which may result in regulations affecting the choice of materials and how they are applied, and the quality of the labor force. Pickard noted that a predicted critical labor shortage would require more money to induce workers to work on a roof in 90-degree weather and do a job well. And that means that building owners will have to pay for quality. They should think about costs as a long-range investment, not just an initial expense.

"We’re all on a learning curve," McCall said. "What we are seeing is a kind of evolution. In the future, the key is that the warranties are going to keep the manufacturers focused on the quality of the products because their liability is high."

In addition, owners have become more sophisticated. "From a legal standpoint," Markham said, "they know exactly who to blame if the roof fails or any other part of the building fails. That puts a tremendous pressure on the designer and any other part of the industry to make that system good."
IN THE WORKS
Hayes, Seay, Mattern & Mattern of Virginia Beach, with branches in Greensboro and Raleigh, was selected by the State Building Commission as architects for the new 50,000-square-foot museum to be built on Elizabeth City's waterfront. The firm has experience in museum construction, including the collection facility master plan for the Smithsonian Institution at Suitland, Md., and the Center-in-the-Square museum complex in Roanoke, Va. Centerbrook Associates of Cambridge, Mass., will serve as a museum consultant to the project. Initial design monies for the project were secured from the 1989-1990 legislature. Remaining funds will be sought in the 1990 session, with construction funds petitioned in the 1991-1993 biennium.

Little & Associates Architects of Charlotte has completed the design of 380 Knollwood, a high-profile office/retail building in Winston-Salem, with Forsyth Partners. The 170,000-square-foot, eight-story building, located on I-40 at the Knollwood exit, will feature retail space at street level and office space, and a cafe with outdoor dining. Construction by the Charlotte division of McDevitt & Street Co. is to be completed in late 1990. TRAVCO plans to build an eight-story hotel adjoining the complex.

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Walter Robbs Callahan & Pierce is currently working on a 54,000-square-foot addition and renovation to the Z. Smith Reynolds Library at Wake Forest University; a new main Post Office in Winston-Salem; an addition and renovation to the Kernersville Elementary School; the new West Forsyth Family YMCA in Clemmons; and an addition and renovation to the Joyner Library at East Carolina University.

 NAMES AND FACES IN NORTH CAROLINA ARCHITECTURE

Joe A. Jones, CPA, has joined the firm of Peterson Associates, Charlotte, as controller.

J. Scott Hester, AIA, fills the newly created position of director of interior architecture and the interior design department at Walter Robbs Callahan & Pierce Architects, PA, of Winston-Salem. A native of High Point, he returns to the area from Norwell, Mass., where he was director of design for an interior program management firm. He studied at Duke University and received his bachelor of architecture from the University of Michigan.

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J. Scott Hester

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Kevin R. Smith
He received a master of architecture from the University of Pennsylvania.

Also at Walter Robbs Callahan & Pierce, P.A., Steven R. Ulp, AIA, and Kevin R. Smith, AIA, have recently completed all licensing requirements to practice architecture in North Carolina.

The Charlotte firm of Dellinger Lee Nichols Architecture has changed its name to Lee Nichols Architecture. The firm, in its 20th year, is managed by principals Donald R. Lee, FAIA, and William A. Nichols Jr., AIA. The firm also has established the Robert C. Dellinger Memorial Scholarship in honor of Bob Dellinger, one of the firm’s founding principals. The scholarship will be offered each year to an undergraduate architectural student at the NCSU School of Design. Dellinger’s alma mater.

John and Anna Lewandowski have changed their architecture and planning firm’s name to Lewandowski Architecture and have relocated their office to 101 S. Stratford Road, Suite 303, Winston-Salem 27104.

Apologies and Amplification
An article about architectural photographers (March/April) incorrectly attributed to Allen Weiss the role of photographer on an assignment to photograph leading architects in New York for Town & Country. At that time, Weiss served as an assistant to Arnold Newman, the renowned portrait photographer.

The list below identifies architects of the buildings that appeared in the article on architectural photographers. For one, a residence photographed by JoAnn Sieburg-Baker, the information was unavailable.

Greensboro/Guilford County Government Complex: Eduardo Catalano, Architect
The Hop: Spaceplan/Architecture
N.C. Department of Transportation Office Building: Hager Smith & Huffman
St. John’s Episcopal Church: Hawkins Kibler Associates, Architects
Chatham County Social Services Building: Burnstudio Architects, PA
Honey Island Elementary School: Sam Fauntleroy, Architect
Goldsboro Milling: Bartholomew Associates
Dean E. Smith Center: Haakan/Corley & Associates

Want a Well-Rounded Project?

DRYWALL SHAPES. Introducing radiused corners into a rectilinear world has always been problematical. To achieve subtle turns, contoured transitions or precise reveals in drywall interiors has, till now, required: finding expert craftsmen; using wood or other materials in less than satisfactory ways; or abandoning curves altogether.

ENTER CONTOURS®. But, now, architects, designers and interior contractors have entered an era where almost anything is possible. Contour’s broad variety of profiles in aluminum, galvannealed steel and vinyl/ acrylic can easily transform an ordinary drywall interior into an exciting “soft-edge” environment.

These profiles include radiused inside/outside corners, wall terminations, light coves, column covers, ceiling vaults and accent reveals.

EASY TO WORK WITH. C/S Contours components have all been designed for simple, low cost field installation using the ordinary tools of the drywall trade. Flanges are offset and punched to receive drywall screws, joint tape and spackle. All Contours profiles are specially treated to accept paint and flexible fabrics, assuring continuity of finished surfaces.

DELIVERY. Extruded aluminum and vinyl/ acrylic profiles are normally shipped within three working days of receipt of order.

Custom-formed profiles are shipped seven to 21 days after receipt of firm specifications.

Unusually large or complex orders may require additional time. For complete profile availability or design assistance, call (704) 342-3337.

So, next time you want to throw a curve at this rectilinear world, use Contours and make almost anything possible.

SPECIFICATIONS. Furnish and install C/S Contours® prefabricated drywall accessories as manufactured by Construction Specialties, Inc., Muncy, Pa.

Material shall be extruded aluminum, galvannealed steel, or vinyl/ acrylic. Each profile shall include 1/4" wide offset flanges and staggered hole perforations to accept standard drywall screws, tape and spackling compound. Metal surfaces shall be pretreated for compatible bonding of joint compound, paints or flexible fabrics.

So, whenever there’s a question of curves, call Bob Grogan or Jack Edwin at (704) 342-3337.

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To learn more about Shelco, call or write us: 101 South Stratford Road, Winston-Salem, NC 27104, (919) 721-2200.

A Clear View

FireLite, a newly introduced glazing material, was developed in response to the demands of architects and tenants for a clear glass without wire that would meet fire codes.

FireLite looks, cuts and feels like regular window glass, but it can withstand the simultaneous effects of fire and rapid cooling and does not require wire for structural reinforcement. As a result, it eliminates the ‘chicken wire’ look of ordinary wire glass while offering a better fire rating and greater impact resistance. Its 3/16 inch thickness fits standard fire-rated frames and because it is not tempered, it can be cut with a glass cutter.

FireLite rated the maximum fire ratings allowed by code. It is available in a maximum size of 36 inches by 96 inches. FireLite, from Nippon Electric Glass Company Limited, is distributed in North America by Technical Glass Products. For more information, contact Technical Glass Products, 5525 Lake View Drive, Kirkland, WA 98033 or phone 800-426-0279.

Tacky Product

Here’s an alternative to glue, tape and staples. FaStack from Kroy, best known for its labeling and lettering systems, is a new roll-on adhesive that sticks like glue without the mess. It comes in two forms — repositional and permanent. The former turns any piece of paper into a note that sticks anywhere, then lifts off clean. Permanent FaStack is the ideal choice for wrapping packages, adhering artwork and more without the mess of glue or tape.

The disposable dispenser rolls on a dotted line of microthin adhesive, ready to use instantly with no glue mess. FaStack is available through office products dealers nationwide. The suggested retail price is $3.29.
Sealed And Secure
A new penetrant from GE Silicones that locks out moisture and reduces fungal and algal growth is being used to protect the Bermudian coral limestone walls, roofs and stone fencing of the Elbow Beach Hotel in Bermuda. The moist island weather causes the porous, absorbent stone to be covered with mildew and algae, which chemically break down the stone. For the past 50 years, roofs and walls throughout the resort have demanded continual cleaning and replacement to remove damaging growth and combat resulting musty dampness.

The first in a new family of structure protection products for concrete masonry and porous dimensional stone, TWR 255 Water Repellent Penetrant was chosen to seal the hotel’s surfaces because of its moisture-vapor permeability. This allows any entrapped moisture to dissipate while sealing out water and dampness—particularly wind-driven rain. It also keeps the stone surfaces dry in humid climates.

After application by brush, spray, roller or cloth, the clear, non-yellowing, non-glossy silicone solution reacts with atmospheric moisture, resulting in immediate water repellancy. It can be used on vertical and horizontal surfaces of porous brick, brownstone, concrete, sandstone, limestone, quarry tile and other porous dimensional stones and tiles.

For more information, contact General Electric Company, Silicone Products Division, Waterford, NY 12118 or call 800-255-8886.
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New Light On Affairs Of State
Nowell's, Inc., is manufacturing authentic reproductions of Victorian light fixtures for the two miles of corridors in the Old Executive Office Building, next door to the White House. In all, the firm will make nearly 200 of the fixtures for the gray granite building completed in 1888.

Nowell's has developed a reputation as a source of historically accurate Victorian lighting fixtures. In 1987, the National Trust for Historic Preservation selected the Meiggs Wharf, a lamp from Nowell's catalog, as an accurate reproduction suitable for the corridors of the Treasury Department. In addition to making and selling replicas of antique fixtures, Nowell's restores lighting fixtures and sells antiques, lamp oil, cloth lamp shades and a variety of glass shades. Nowell's parts are specially made, many from private molds taken from antique pieces. Other brass pieces are crafted the old-fashioned way, by brass spinners.

For a copy of Nowell's 52-page catalog, send $3.50 to Nowell's, P.O. Box 295, Sausalito, CA 94966.

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Danny Thomas, Founder
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Reducing Radon

The Environmental Protection Agency has found Enkavent Radon Control Matting effective in helping to reduce the level of radon in the home by 97 percent, according to the manufacturer, Akzo Industrial Systems Company. The product is a three-dimensional geomatrix matting that prevents radon gas from penetrating slabs and foundation walls by providing a channel-way that collects radon and vents it to the atmosphere through exhaust pipes. It can be used in new home construction or installed in crawlspace after the home is built. Enkavent, which is hinged to connect the foundation wall to the subslab, is placed fabric-side down on the ground and covered with a vapor barrier. A flanged vent pipe is set over the Enkavent. The slab is then poured over the system, which now will allow venting of radon before it can penetrate the building interior.

Enkadrain, another Akzo product, is a lightweight alternative to traditional drainage materials, such as gravel, stone, graded aggregate and sand blankets. A composite consisting of nonwoven geotextile fabric bonded to a compression-resistant nylon matting, it blocks out sediment and channels water to a drainage pipe.

For more information, contact Akzo Industrial Systems Company, One North Pack Square, P.O. Box 7249, Asheville, NC 28802 or phone 704-258-5050.

In the design and construction of the Charlotte Coliseum, architects faced two tough problems. To design a structure with over 80,000 square feet of exterior wall to be inviting and to do it on a limited budget.

Metromont Materials offered the solutions with Customized Concrete Masonry Units offering limitless opportunities to enhance the appearance with textures, colors and patterns—all within the client’s budget. The Charlotte Coliseum utilizes the split face units and a color and texture mix to reduce the massive scale of the structure, creating a friendlier exterior.

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"My partner and I rest a whole lot easier at night knowing that DPIC is there for us. Until we became acquainted three years ago, we didn’t realize just how vulnerable architectural firms were or how devastating a single claim could be. We certainly didn’t realize the difference an insurer could have in our continued success.

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