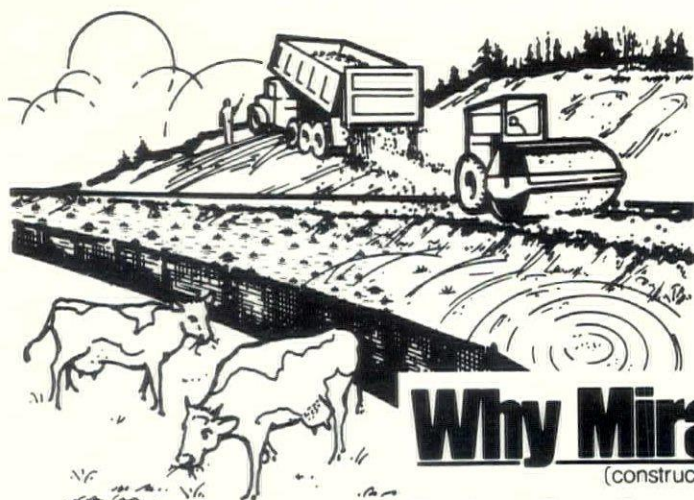


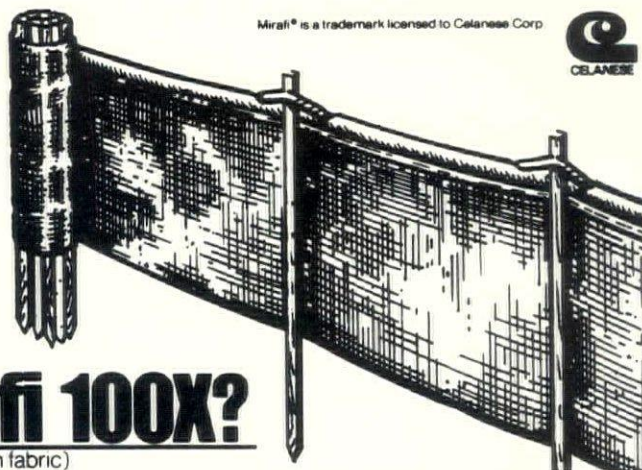
A photograph of a curved wooden walkway overlooking a body of water, with large rocks in the foreground and trees in the background. The scene is captured in a warm, golden light, likely during sunset or sunrise. The water reflects the light, and the sky is a pale, hazy blue. The foreground features large, dark, textured rocks. The background shows a line of trees and a distant shoreline.

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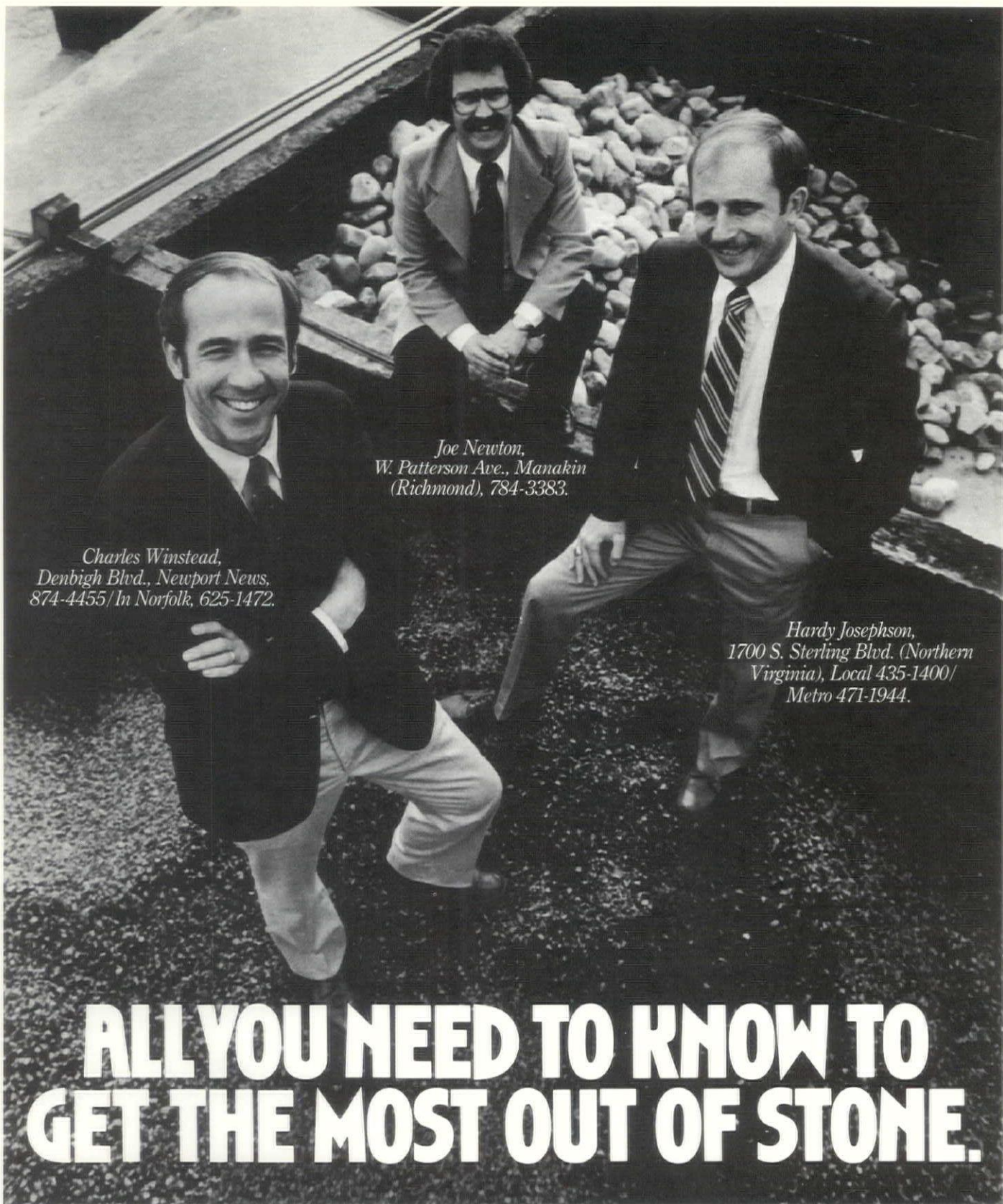
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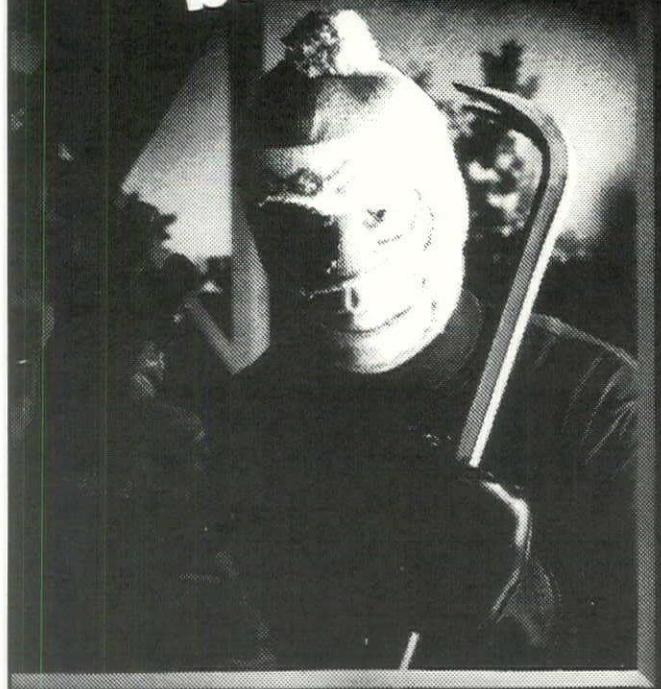
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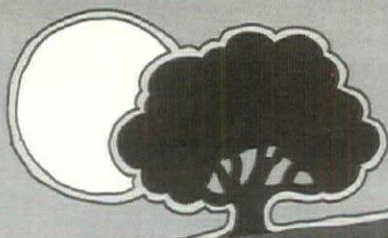
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ON OUR COVER is a view of the Landscape Architecture project at "Wexford" in Northern Virginia. The project is presented by Earth Design Associates on page 20 of this issue. (Photography by Barry W. Starke)



A FEW WORDS ABOUT TIME.

A day to come seems
longer than a year that's
gone.

— Scottish Proverb

Time is but a stream I go
fishing in.

— H. D. Thoreau

To everything there is a
season, and a time for
every purpose under
heaven.

— Ecclesiastes 3:1 200 B. C.

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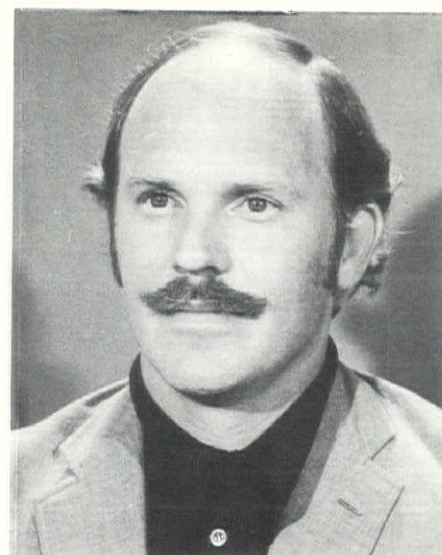
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By

Frederick E. Baukhages, IV, AIA

A Line on Design and Energy

Bad News/Good News! The bad news is that we do have an "energy problem," an "energy shortage," an "energy crisis," and many of us fear the future, the energy revolution, as the dawning of austerity, sacrifice and a shrinking quality of life. Americans have had revolutions before—political, industrial, and technological revolutions. All of these made things better for us, but this energy revolution looks different, it is not welcome, it seems threatening, we have no choice. The good news is that the American Institute of Architects, and the Virginia Society, takes a more positive view. We believe we can turn this unwanted revolution around and make it work to give us richer and better lives. We can turn it around to re-establish an energy-conscious relationship with the world around us. The AIA believes sensitive design and redesign of our built environment will lead to a better way of living.

When Americans first began the "pursuit of happiness" in earnest, there were only a few million of us and energy needs were practically nonexistent. For 200 years energy consumption has grown enormously using up our large but finite resources. Today we can still support our population of over 200 million, but each year we are leaving less and less for the still greater consumption we contemplate for the following year. In 140 years we have gone from eight people per square mile to 62, still a low and rich population density, but on a resources per capita basis, we do indeed become poorer each year. In 1972, oil imports cost us less than \$5 billion. In 1979, oil imports cost us \$65 billion. We are sending, as a result of our usage, that much wealth to the OPEC Nations. We do, in truth, grow poorer and poorer.

What is the point? There are at least three. First, the energy crisis is both deep and real. It will affect our lifestyle from now into the foreseeable future. A second point is that the AIA believes we do have a choice in how we respond to this "energy crisis." We can worry and watch our way of life slip down the drain or we can do something—take creative steps to change our stumbling approach into the future—in the way we live and work, how we transport ourselves, and in the way we design and redesign our built environment. The third point is that architects are convinced that they have a special role to play in forging a future marked not by "more," but rather by "better." One of the major ways this can be accomplished is through the energy-conscious design of our buildings. It is a special challenge.

Some might ask, haven't we already met the challenge? Aren't we designing and building new homes tighter, more energy streamlined, more efficient? There is no question that many homes are being built tighter, but tightening the structure and fine-tuning the machinery does not necessarily create more energy-efficient buildings. Consider: in 1981, buildings consumed about 37 percent of the energy produced in this country. In 1973, buildings consumed about 32 percent of the energy produced. Thus, while transportation and manufacturing have cut their share, the built environment's share of the energy pie has grown larger. This should tell us something. We need to bear down and come to grips with the situation.

Up to now, the major thrust of our war on the energy problem has been defensive in nature. We have been insulating, heat pumping and double or triple-glazing up a storm—definitely a help, but not the whole picture. We need to join these defensive tactics of energy conservation with a powerful offense, the tactic of energy consciousness. Energy consciousness is no more than recognizing that how people use energy in a building is basically determined when it is designed. In other words, the way a building is shaped or configured during design has a profound effect on how the people in that building use energy. Given the same criteria in two differently designed buildings, the energy consumption will be dramatically different.

The point is that energy consciousness goes beyond weather-stripping. It includes such basic decisions as orientation, mass and shape of the structure, materials used, textures, and the grouping of buildings, even the colors selected. Energy-conscious design focuses on the building elements themselves: using light or dark surfaces to reflect or absorb heat; taking advantage of earth insulation; reducing glass on north walls while using glass on south walls to gather warmth; using movable shutters to regulate sunlight; providing natural lighting and designing overhangs at windows to admit winter sun while shutting out summer sun; positioning the building to use terrain and vegetation to shelter it from cold winter winds while allowing prevailing summer breezes to

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ventilate. To put it another way, design can help you control fuel bills.

There is another benefit to be derived from energy consciousness. As architects work with the elements, we will see the re-emergence of regional architecture. Building design will relate to the climate and to the particular surroundings. This re-emergence will mean taking a new look at lessons learned much earlier—salt boxes with their steeply pitched roof designed for New England's cold climate; deep porches and verandas in the south to provide shade and natural ventilation; and southwest Indian dwellings turned to face the southern sun and absorb heat with their adobe walls. Such regionalism does not mean that we should return to the past. It

does mean that design elements that take advantage of their surroundings become vital. Instead of seeing more buildings that could be built anywhere, you should see more architecture that will be identified by its locale. It all comes down to the fact that energy-conscious design is one of our important natural resources. That is why the AIA and individual architects in Virginia and across the nation have made energy their number one priority. That is why the American Institute of Architects has chosen the words "A Line on Design and Energy" as our theme for 1981. Our theme is our way of calling attention to the contribution that architects can make toward solving our nation's energy problem—our way of demonstrating our commitment to energy-conscious design.

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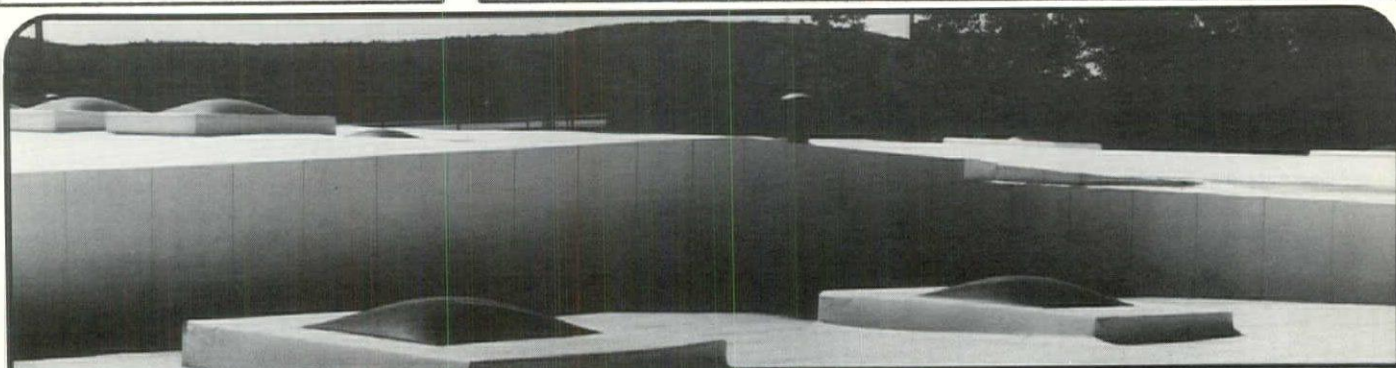
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NEWS

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AIA National Convention to Highlight Energy And Design Leaders

May 17-21, 1981, Minneapolis/St. Paul

Nationally known architects, educators, news analysts, historians and public officials who have fostered or inspired energy-conscious design will share their views during four theme programs at the 1981 AIA National Convention in Minneapolis/St. Paul, May 17-21.

The convention's theme, "A Line on Design and Energy," reflects the AIA's 1981 initiatives and programs to let the nation know that architects can make a significant contribution in freeing Americans from their dependence on fossil fuels and imported oil, explained AIA President R. Randall Vosbeck, FAIA.

Kicking off the convention will be a keynote presentation by Ralph L. Knowles, professor of architecture at the University of Southern California. Author of a definitive text for energy-conscious planners and designers, Knowles was the recipient of the AIA Research Medal in 1976. His address on energy dynamics and design will set the stage for a series of programs focusing on ways that energy affects the architectural profession: history and technology, policy and economic development, and energy-conscious design.

Historian and critic James Fitch, professor emeritus of architecture at Columbia University, will participate in a panel discussion on energy-conscious history and technology May 19 with New York City architect Richard G. Stein, FAIA, and Dr. Roberta Balstad Miller of the Social Science Research Council, Washington, D.C. Moderating the panel will be President Vosbeck.

Carl T. Rowan, syndicated columnist for the *Chicago Sun Times* and TV panelist and news

commentator, will moderate a panel for the energy-conscious policy and development theme program, May 20. Serving on the panel will be management consultant John Sawhill, former head of the federally chartered Synthetic Fuel Corp.; St. Paul Mayor George Latimer; as well as federal and state officials and an industry leader.

News analyst Robert MacNeil, who shares the spotlight each evening with Jim Lehrer on the nation's most popular public TV news program, will moderate a panel discussion of architects who pioneered energy-conscious design. Panelists for the May 21 program will include: William Caudill, FAIA, chairman of the board of CRS Inc., Houston, one of the nation's most innovative energy-design firms; Harrison Fraker Jr., AIA, head of the Princeton Energy Group; Sim Van der Ryn, former California state architect who advanced energy-conscious design throughout his state; Robert A. M. Stern, FAIA, New York City, and Josep Lluís Sert, FAIA, Cambridge, Mass., winner of the AIA's Gold Medal in 1981.

I. M. Pei, FAIA, who received the AIA's Gold Medal in 1979, will join Sert and other Gold Medal winners for a panel discussion at the Gold Medal dinner, May 20.

Other convention headliners will include NBC News commentator David Brinkley, recently selected for honorary membership in the AIA, who will address the convocation dinner of the AIA College of Fellows, May 18. Ninety-one members of the AIA will be invested as Fellows.

The convention will feature 14 professional development seminars focusing on energy consciousness at every stage of the design process. An array of new architectural products and services directed to design and allied industries will be exhibited in the Minneapolis Convention Center.

Robert C. Broshar, FAIA, Waterloo, Iowa, is chairman of the 1981 convention.

New Senior Associates In Virginia Beach Firm

Oliver, Smith and Cooke, Ltd., Architects has announced that Mr. Isaac V. (Mike) Harris and Mr. William F. Deal, Jr., AIA have been appointed Senior Associates in the firm. It was also announced that Mr. Harris and Mr. Arthur B. (Skip) Dunbar, III have completed all requirements for licensing and are now fully registered professional architects.

During his 12 years with the firm, Mr. Harris has performed technical research, construction document preparation and project supervision and, in 1979, was assigned the additional responsibility of quality control. Recent projects have included the United Way Family Center in Virginia Beach, the Fort Lee Commissary, and numerous facilities for C & P Telephone Company.

Mr. Deal joined the firm in 1976 after completing Bachelors and Masters degree requirements in architecture at the University of Virginia. He has designed or directed a wide variety of projects, including the Furmanite Corporation headquarters complex, Church of the Holy Family, major historic restoration/renovation projects in Roanoke and Petersburg, the Northampton Elementary School and is currently involved in the design of a 110 unit hotel project in Virginia Beach.

A graduate of Virginia Polytechnic Institute, Mr. Dunbar joined Oliver, Smith and Cooke, Ltd. in September 1980 after five years of experience with other Tidewater architectural firms. His background includes design and production drawing of residential, commercial and institutional projects throughout Virginia. He is currently involved in a major townhouse complex in Tennessee and a medical center in Virginia Beach.

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(Continued)

Firm Announces New Vice President and Name Change

Newbill and Associates, Inc., Virginia Beach architects has announced that Roger L. Beale, AIA has joined the firm as vice president.

As of April 1, 1981, the firm will continue in practice as Newbill and Beale, Inc., Architects, in their offices at First Colonial Office Park, 1813 First Colonial Road, Virginia Beach.

The AIA's President Calls On Builders and Contractors To Join Architects In Solving Energy Problems

Builders and contractors must unite with architects in solving the nation's energy problems so that the construction industry can work as a team in its pursuit of a "cost-effective, quality, energy-efficient built environment for all Americans," R. Randall Vosbeck, FAIA, president of The American Institute of Architects, told the 1981 national convention of Associated Builders and Contractors (ABC) Inc. in a speech on February 13 in New Orleans.

In his address at the ABC business luncheon aboard the paddle-wheeler *S.S. President*, Vosbeck challenged builders and contractors to move "full speed ahead into the future" with architects to make the public aware that the building industry is "not part of the energy problem, but a key to opening up a new and better way of living for all Americans—a way that is energy responsive, a way that recoups the \$90 billion that is currently winging its way overseas to import three million barrels of oil a year."

While urging various segments of the building industry to pull together, Vosbeck called on each group to be appreciative of each other's skills and interests.

The Alexandria architect who heads the 37,000-member national professional society, said AIA members want to develop closer relations with ABC members. "We want to try to work out common agendas wherever possible, so that when the industry speaks to clients, the public and government, we speak with a strong, unified and positive voice."

Vosbeck observed that the AIA and ABC are moving in the same direction, so that it makes sense to "travel together" in shaping legislation

that affects both memberships. He recalled that both professional groups previously stood together in opposing common situs legislation.

"Even when we differ," Vosbeck pointed out, "none of us should ever lose sight of the common force that drives us. And that force is our shared commitment to a healthy, private building industry that provides the public with a cost-effective, quality built environment," he explained.

A national champion of energy-efficient design, Vosbeck said he believes that within the "challenge of energy there lurks an opportunity, an opportunity that can lead to a revolution—

Newly Licensed Architects

Mr. John H. Spencer, AIA, Hampton, Chairman of the Architect Section of the Virginia State Board of Architects, Professional Engineers and Land Surveyors, has announced that the following persons were licensed as Architects as a result of having passed an examination given on December 8 & 9, 1980 in Richmond, Virginia.

Virginia Society AIA Associate Members

Zan Linn Cartwright, Newport News—Tidewater Chapter
Robert Eric Comet, Jr., Richmond—James River Chapter
Andrew Ferguson Cronan, Williamsburg—James River Chapter
Broun Conway Dameron, Jr., Williamsburg—Tidewater Chapter
Thomas Anderson Gannaway, Richmond—James River Chapter
Howard Rucker Keister, III, Norfolk—Tidewater Chapter
Robert William Moje, Charlottesville—James River Chapter
Glenn Payton Reynolds, Blacksburg—Blue Ridge Chapter
Maury Stewart Saunders, Fairfax—Northern Virginia Chapter
Michael Clyde Stevens, Arlington—Northern Virginia Chapter
Daniel Albert Zahn, Roanoke County—Northern Virginia Chapter

Other Licensees

Roger Lee Beasley, Stuart
John Joseph Burzynski, Philadelphia, Pennsylvania
Mark Christopher Campbell, Richmond
Jeffrey Graham Copeland, Mechanicsville
Harold Eric Downing, Highland Springs
Arthur Bradford Dunbar, III, Virginia Beach
Pedro T. Escario, Virginia Beach
James Edward Fisher, Richmond
Robert Edward Frere, Greenville, Tennessee
Judith Burnett Halsey, Washington, DC
Isaac V. (Mike) Harris, Jr., Virginia Beach
Samuel Moore Hedgecock, Jr., Norfolk
Henry Joseph Hoffman, III, Chesapeake
James Lee Koleszar, Sterling
Robert Preston Ludden, McLean
Evelina Guerrant Massie, Richmond
Raymond Andrew Sailor, Norfolk
Frederick William Schneider, Scottsville
Kenneth Felix Simmons, Arlington
Frederic Michael Smith, Arlington
Joe Paul Vaughan, Richmond
James Michael Witten, Statesville, North Carolina

Other members of the Architect Section of the Board are Mr. Edgar C. Beery, Jr., AIA, Annandale, and Mr. Frank B. Poole, Jr., AIA, Richmond.

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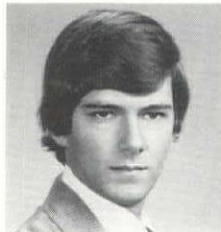
JON WINIFRED SAMMER, Associate
With Beery Rio & Associates, Annandale
Northern Virginia Chapter



MAURY S. SAUNDERS, Associate
With Barkley, Pierce, O'Malley—Architects/
Planners, Falls Church
Graduate of VPI & SU, Blacksburg
Northern Virginia Chapter



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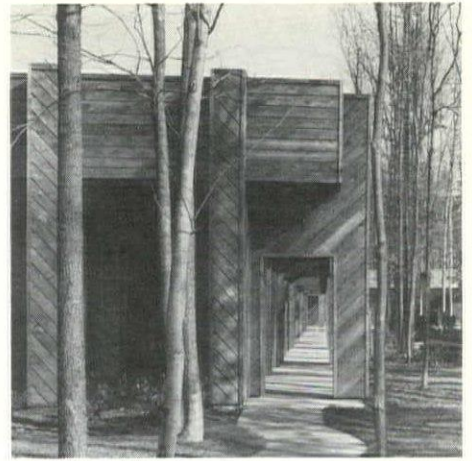
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• General Contractor, R. G. Moore & Donald L. Moore
• Photography, H. C. Radford.



Approximately 12 wooded acres located in the heart of the fast growing Holland Road corridor was perfectly suited for this office park. Careful removal of a minimum of trees allowed us to nestle each one of three identical buildings so that every office tenant would command an excellent view of the wooded area. Heavy timber post and beam support the 48' clearspan Trus Joist trusses which extend out 5' each side partially shading the 9' walk.

Horizontal wind stresses are carried down to the foundation via steel strapped 6" x 4" wood posts and 6" x 10" wood flitched plate beams. The 8" concrete masonry walls at ends and at center allow for shearing stresses. 6" wall insulation around perimeter and 12" at ceiling as well as limiting size of insulated windows assured a comfort level for office personnel, while not obstructing the view.

Since design requirements dictated a wooded park-like atmosphere, all masonry piers were covered with clear western cedar siding to complement the main building. Diagonal and hori-

zontal 1" x 6" cedar siding changes direction to create that wooded environment so much appreciated today as we strive to respect our natural resources.

R. G. Moore and Donald L. Moore of Virginia Beach acted as general contractor and also handled landscaping, landscaping work and painting.

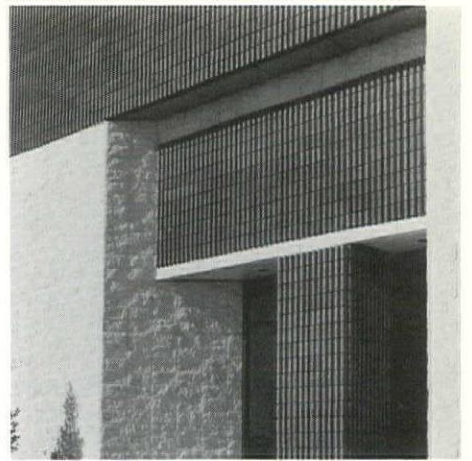
Subcontractors & Suppliers (Virginia Beach firms unless noted)

D & L Utility Co., Inc., excavating; Tidewater Turf Center, Inc., sodding, seeding, etc.; Asphalt Roads & Materials Co., Inc., paving contractor; B. E. Concrete, foundations & concrete contractor; Lowe's, Chesapeake, reinforcing & foundation insulation; Lone Star Industries, Inc., concrete supplier, masonry supplier & mortar; Davis Masonry, Inc., masonry contractor; Trus Joist, Valdosta, GA, roof deck & structural wood; Stevens Construction, carpentry; Addington-Beaman Lumber Co., Inc., Norfolk, millwork, paneling & wood doors; and Triangle Pacific Cabinet Corp., Chesapeake, cabinets.

Also, McDaniel's Roofing Corp., Chesapeake, waterproofing, built-up roof, other roofing & roof insulation; Kempsville Building Materials, Inc., caulking; Colonial Insulation, Inc., Norfolk, wall insulation; Pella Virginia, Inc., Richmond, glass, windows & storefront; Walker & Laberge Co., Inc., Norfolk, glazing contractor, metal doors & frames, & hardware supplier; Kemp Contracting, gypsum board contractor; Accent, Ltd., ceramic tile, structural (glazed) tile, terrazzo, resilient tile, carpet & special flooring; and J. D. Wells, acoustical treatment.

Others were: Sherwin Williams Co., Norfolk, paint supplier/manufacturer; Interior Concepts, Portsmouth, specialties; Talco Plumbers, sprinkler contractor; Schell Supply Corp., plumbing fixture supplier; Donald D. Jones, plumbing contractor; Mechanical Service Co., Inc., Norfolk, heating/ventilating/air conditioning contractor; Atlantic Electric Corp., Norfolk, lighting fixtures/electrical equipment supplier; and Thomas R. Nichols, Co., Inc., electrical contractor.





Office and Warehouse Facility

Armada/Hoffler Company, Chesapeake

Krummell & Jackson Assoc., P.C.—Architect

Mechanical Engineer, Bowman and Associates, P.C. • Electrical Engineer, Bowman and Associates, P.C. • Structural Engineer, Fraioli-Blum-Yesselman Associates • Civil Engineer, Wilfred P. Large • General Contractor, Cross Construction Corp. • Photography, Len Rothman.



The office/warehouse facility designed for Armada/Hoffler Company includes a storage capability of 73,000 square feet and a plush office area of 2,000 square feet.

Located within the 100-acre Greenbrier Industrial and Office Park in Chesapeake, this facility is reflective of the kind of industrial construction that is expanding and to which Armada/Hoffler is dedicated. It also exemplifies that clients, faced with the present economy, are willing to invest in some extra thought and care in design. According to Charles R. Krummell, AIA, President of Krummell & Jackson Associates, P.C., architects and designers, "Armada/Hoffler Company is one of the most sophisticated, aggressive clients that this office has encountered."

A conscientious choice of architects was desired to carefully develop a team who could orchestrate an esthetic, economical solution of minimal components while understanding the overall theme intended for the park. The care and attention which resulted is evident.

Being the first facility for Armada/Hoffler in its new industrial park, Krummell & Jackson Associates, P.C., has taken an approach to conscientiously create a piece of isolated "sculpture" which stands as an anchor for presently ongoing development of the park.

Outside of its unusual appearance and the way in which it utilizes its site, the building's principal interest to designers of industrial facilities is the manner in which the administrative (small scale) functions have been integrated in the warehouse (large scale) function of the building.

The idea was to build a 75,000 square foot storage facility utilizing consistent materials and careful scale. Furthermore, "the plan required that the warehouse not look like the box that the office came in."

From the standpoint of resolving both the relationship of scale and dealing with construction economics, a pre-engineered metal building system with textured masonry veneer was chosen. The steel superstructure is built on a modular system of 50-foot square bays. This spacing allows flexibility while the 20-foot minimum interior eave height allows for the proposed interior building functions.



Building scale was resolved by a horizontal and vertical rhythmical treatment of the textured masonry facade. The treatment is further reinforced through the conscientious use of texture, color and detailing. A unity of rhythm is accented through the solid masonry framework accenting the warehouse scale. It also provides a strong sense of "opening" to indicate the three main entrances.

The office interiors are quite peaceful with carpeted floors, warm tans, and beiges used around stained wood trim. This feeling is accented through recurrent views outside to the richly landscaped grounds.

As equally important to the success of the project as the building esthetics, the total construction cost including sitework did not exceed the \$18.00 per square foot allowance established by other buildings in the area. John Cote, Vice President of Armada/Hoffler, noted, "Krummell & Jackson Associates, P.C. demonstrated not only their design capabilities but also their unique ability to coordinate the various disciplines required to bring their design from concept to reality."

Based on this building's cost effectiveness, design and pleasing appearance, it was fully leased prior to completion.

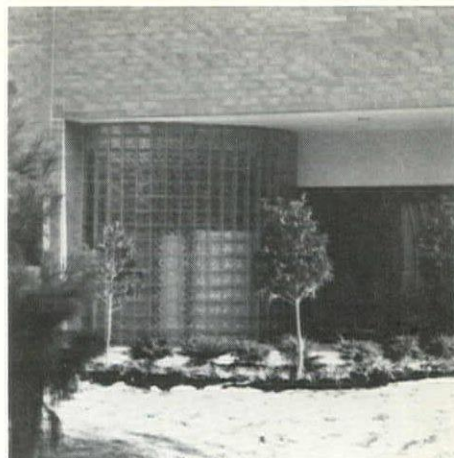
Cross Construction Corp. of Chesapeake was general contractor and handled foundations, and carpentry.

Subcontractors & Suppliers
(Norfolk firms unless noted)

Higgerson-Buchanan, Inc., Chesapeake, excavating, sodding, seeding, etc., and paving

contractor; North Landing Nursery, Va. Beach, landscaping & landscaping contractor; Paul Applewhite, Suffolk, concrete contractor; Hall-Hodges Co., Inc., reinforcing; Sadler Materials Corp., concrete supplier; Snow Jr. & King, Inc., masonry contractor (Adams Block, manufacturer); Varco-Pruden, Winston-Salem, NC, steel supplier/roof deck & roofing supplier; Jackson Builders, Inc., Goldsboro, NC, steel erection; Vulcraft, Florence, SC, steel joists; C. F. Lambert Co., Va. Beach, miscellaneous metal & handrails; Eastern Decorating, Newport News, waterproofing; K & P Caulking & Window Cleaning Co., Portsmouth, caulking; and Adams Block, Korfil roof insulation supplier.

Also, Whitlock, wall insulation; J. D. Miles & Sons, Inc., Chesapeake & Eastern Roofing, foundation insulation; Walker & Laberge Co., Inc., sheet metal, glass, windows & storefront; Door Engineering Corp., glazing contractor, metal doors & frames, wood windows, hardware supplier, specialties & equipment; L. R. Brittingham Co., acoustical treatment; Bay Tile Corp., Portsmouth, resilient tile; Cherry Rug & Carpet Showroom, Portsmouth, carpet; Shaw Paint & Wallpaper Co., Inc., painting contractor; PPG Industries, Inc., paint manufacturer; Dagenhart Sprinkler Co., sprinkler contractor; Noland Co., Va. Beach, plumbing fixture supplier; Byler Plumbing Co., Va. Beach, plumbing contractor; Aircon Ltd., heating/ventilating/air conditioning contractor; Southeastern Electric Supply Corp., Va. Beach, lighting fixtures supplier; and L. E. Ballance Electrical Service, electrical equipment supplier.



O M B Building

Henrico County

Ernie Rose, Inc.—Architect

Owner, Sheppard Assoc. • Developer, Joyner & Co., Realtors • Landscape Architect, Wilson-Moreth • Interior Design, Interior Planners • Structural Engineer, Dunbar, Milby & Williams • General Contractor, Kjellstrom and Lee, Inc. • Photography, Donald W. Tate.



Close coordination between the owner, architect and contractor, resulted in a construction time of only seven months for this two-story speculative office building located in Western Henrico County. Designed as a steel frame and brick veneer building, the brick veneer is supported by structural metal stud panels, prefabricated in 24' lengths and hung on a steel frame. This resulted in the enclosure of the basic shell in less than four months and an early start of the masonry.

Emphasis on the main entrance is provided by an earth berm and special landscaping. By departing from the primary materials and form of the building, further emphasis is provided by a curved glass block wall. This curved wall leads the visitor into the main lobby which features a glazed quarry tile floor and open stairwell. All support areas for the building are located in a central core to allow maximum flexibility as tenant spaces develop. Basic finishes include carpet, acoustical tile lay-in ceiling and drywall with optional vinyl wall covering. Energy efficiency is achieved through the use of 4" roof insulation, 6" fiberglass wall insulation, and 1" insulated reflective glazing.

The first floor is occupied by a Richmond-based corporation which required not only typical office space but also a computer room. Due to the special HVAC requirements of the computer equipment, the computer room is environmentally controlled by an entirely separate mechanical system.

By locating the parking at one end of the site, a natural setting was preserved for the building. As a result, a positive contribution is made to the quality of the interior space and the tenants enjoy views of existing trees and new landscaping.

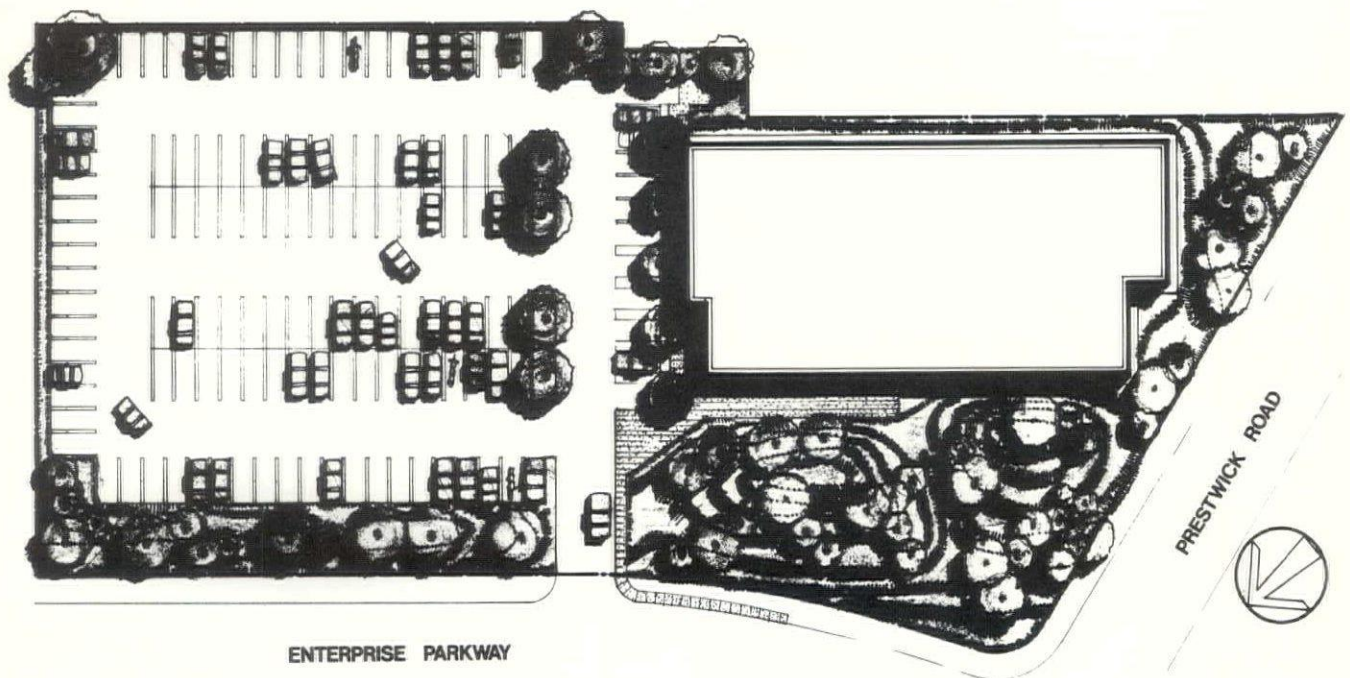
Kjellstrom and Lee, Inc. of Richmond was general contractor for the project.

Subcontractors & Suppliers
(Richmond firms unless noted)

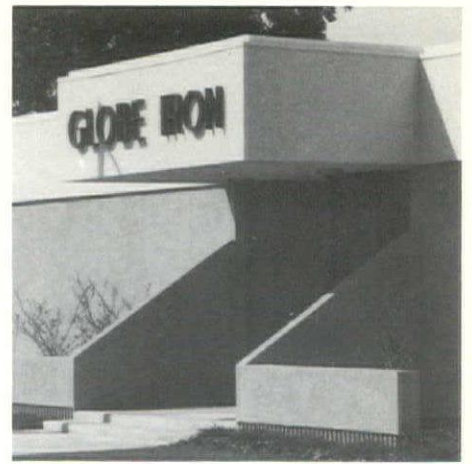
P. E. Eubank & Co., excavating; Cherotuck Nurseries, landscaping contractor; Lee-Hy Paving Corp., paving contractor; Frank N. B. Thomas Concrete, concrete contractor; ReSteel Services & Products Corp., reinforcing; Massey Concrete Corp., concrete supplier; Southern Brick Contractors, Inc., masonry contractor; The Belden Brick Co., Canton, OH, masonry manufacturer; Holmes Steel Co., Inc., Ashland, steel supplier/erection; Vulcraft, Florence, SC, steel joists; Ruffin & Payne, Inc., millwork & wood doors; and E. S. Chappell & Son, Inc., caulking.

Also, Williard L. Council Roofing, Inc., roofing; Binswanger Glass Co., glazing contractor (L.O.F. glass); Pleasants Hardware, metal doors & frames, & hardware supplier; A. Bertozzi Inc., gypsum board contractor; Leo H. Bourne Tile & Marble Contractor, Quinton, ceramic tile; O'Ferrall, Inc., acoustical treatment; Hodgman's, Inc., carpet; Liskey, Inc., special flooring; James G. Day Painting & Decorating, Inc., painting contractor; Westinghouse Elevator Co., elevators; Colonial Mechanical Corp., sprinkler/plumbing/heating/ventilating/air conditioning contractor; and Advance Electric Co., electrical contractor.

Dylite Expanded Polystyrene roof insulation, Amarlite windows & storefront, Lithonia lighting fixtures and General Electric electrical equipment were used.



SITE PLAN



Globe Iron

Corporate Headquarters, Norfolk

**The Design Collaborative/Edward R. Roehm, AIA—
Architect**

Interior Design, Nimi Trehan • Mechanical Engineer, Old Dominion Engineering, Inc. • Electrical Engineer, Old Dominion Engineering, Inc. • Structural Engineer, Stroud-Pence and Associates • Civil Engineer, William C. Overman & Associates • General Contractor, L. J. Hoy, Inc. • Photography, Ed Roehm.





Program

After being in business in the same area for a number of years, Globe Iron outgrew the facility that it had occupied since it was founded. A Corporate Headquarters was designed to house the administrative and accounting offices.

Site

The site was a flat lot directly across from the existing plant. Located in an industrial area, security was a major concern.

Design Solution

Since there was no notable exterior scenery, the design team decided to turn the interest inward and use a skylighted atrium with greenery to create an "outdoors" feeling. As an added security factor all ground level windows were eliminated and overhead light provided the necessary feeling of openness.

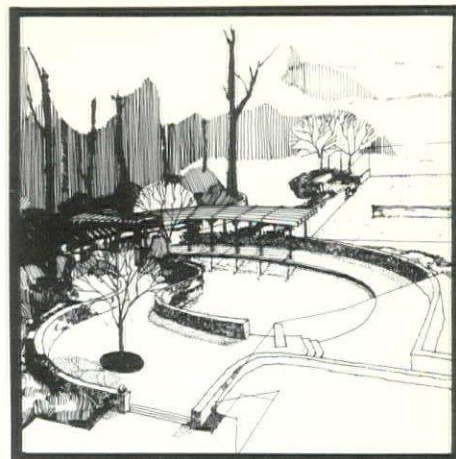
The 6,000 sq. ft. facility was designed to be energy efficient. R-19 walls and an R-30 ceiling provide a high degree of insulation. The elimination of windows and a vestibule entry give the additional benefit of eliminating drafts. A VAV mechanical system was used. Dryvit was applied as the exterior finish over CMU both for economy and added insulation. Fluted concrete block provides interest in texture and design.

The interior design utilizes abstract graphics in the conference and recreation areas to provide a relaxed and informal feeling. Interior designer, Nimi Trehan of The Design Collaborative, used blooming plants and greenery of differing textures and color to add to the interest and make the atrium the focal point of the building.

L. J. Hoy, Inc., of Norfolk was general contractor and handled paving and foundations.

Subcontractors & Suppliers (Norfolk firms unless noted)

Lone Star Industries, Inc., concrete contractor/supplier; Hall-Hodges Co., Inc., reinforcing; Hudson Masonry Co., Va. Beach, masonry contractor; Globe Iron Construction Co., Inc., steel supplier/erection; Powell-McClellan Lumber Co., Inc., millwork; Eastern Roofing Corp., membrane roofing; Walker & Laberge Co., Inc., glass; Tidewater Plastering & Drywall, Chesapeake, plaster contractor; Ferrell Linoleum & Tile Co., Inc., ceramic tile; Charlie Jones, Inc., acoustical treatment; Grover L. White, Inc., resilient tile; Shaw Paint & Wallpaper, Inc., painting contractor; Overhead Door Co. of Norfolk, Inc., Va. Beach, specialties—grill; E. B. Sams Co., Inc., plumbing contractor; Bay Harbour Mechanical, Ltd., Va. Beach, heating/ventilating/air conditioning contractor; and Howard E. Marquart & Co., toilet partitions & skylights.



Wexford

Landscape Architectural Grounds Improvements, Fauquier County

Earth Design Associates—Landscape Architect



General Contractor, Hanback Construction, Inc. • Photography, Barry W. Starke.

"Wexford," the former Fauquier County country home of President and Mrs. John F. Kennedy, and recent Washington area campaign residence of the Ronald Reagans, has been awarded the 1980 American Society of Landscape Architects Virginia Chapter Merit Award in Design.

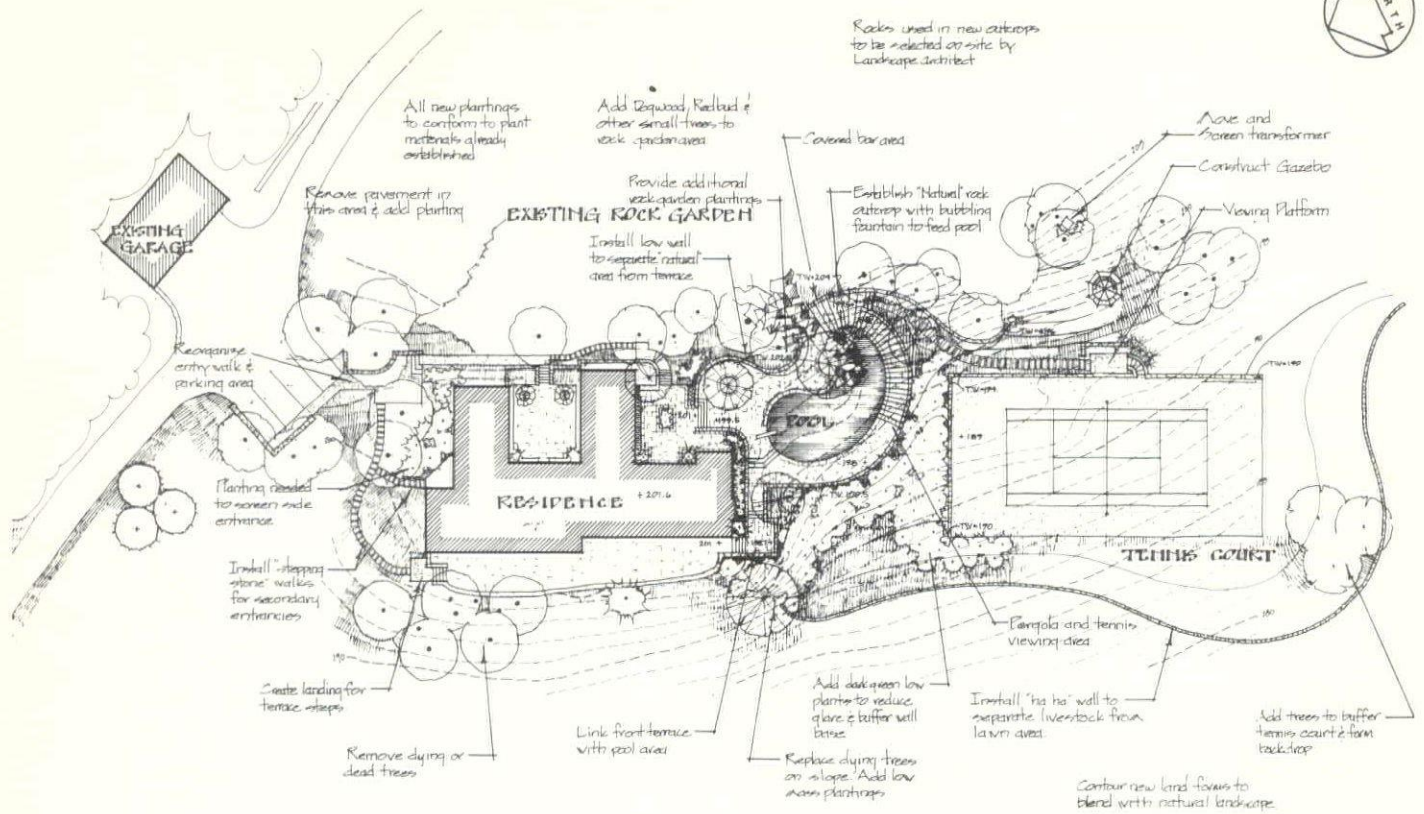
Originally, Mrs. Kennedy designed the house, naming it for the late president's ancestral home in County Wexford, Ireland. Built in 1963 by Middleburg Building Company, it is located on Old Hatcher's Mountain, one of the highest sites in the Upperville-Middleburg vicinity. Its location provided a dramatic although difficult situation, making this project an unusual challenge and reward for the landscape architectural team.

This project, designed by the landscape architectural/architectural design firm of Earth Design Associates of Casanova, included the reworking of the original grounds surrounding the house and new installation of a swimming pool, tennis court, tennis viewing area, sunbathing area, wet bar and large spaces for entertainment. Construction was handled by Hanback Construction, Inc. of Warrenton.

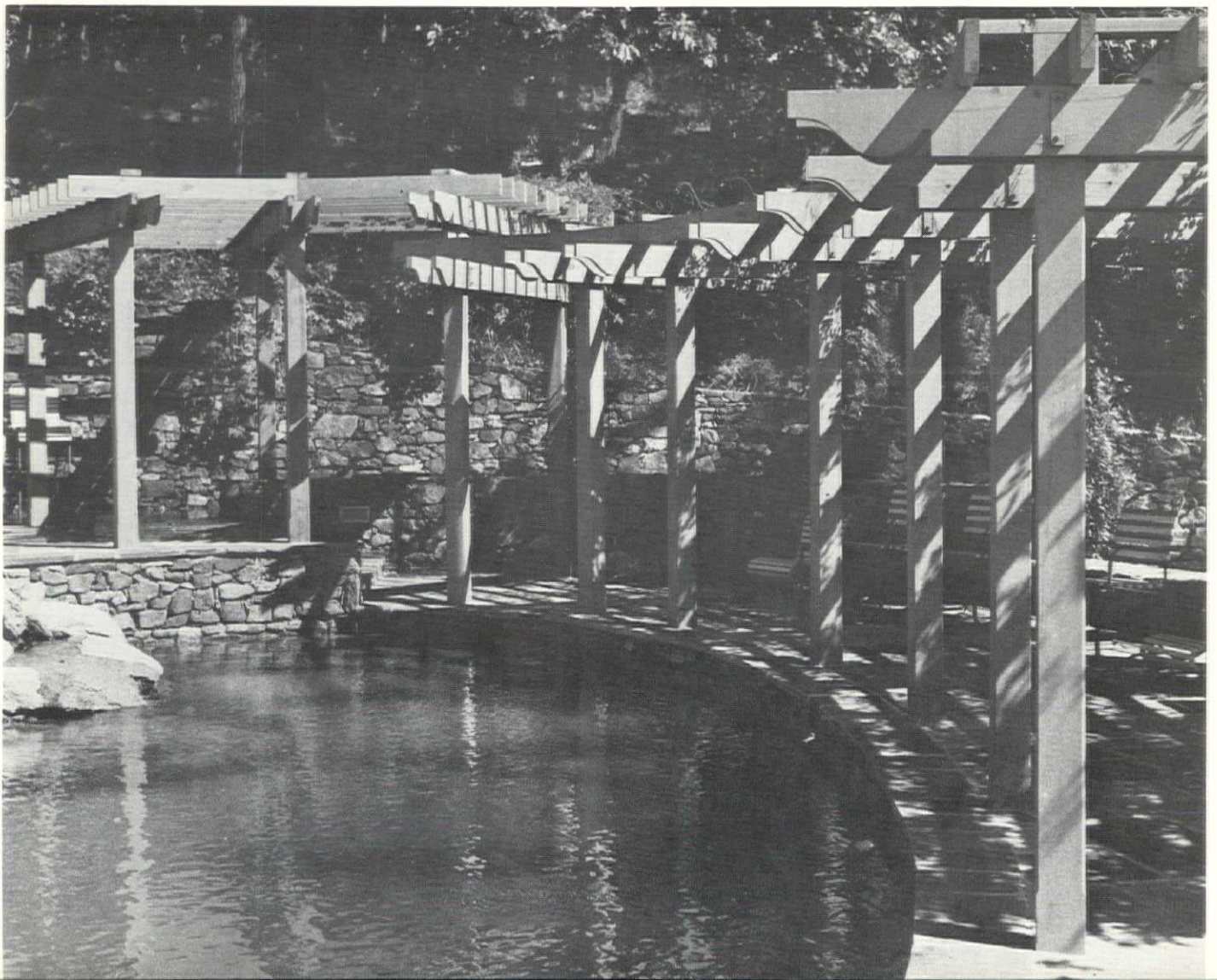
The design challenge was to fit these elements into an unusually beautiful but difficult site.

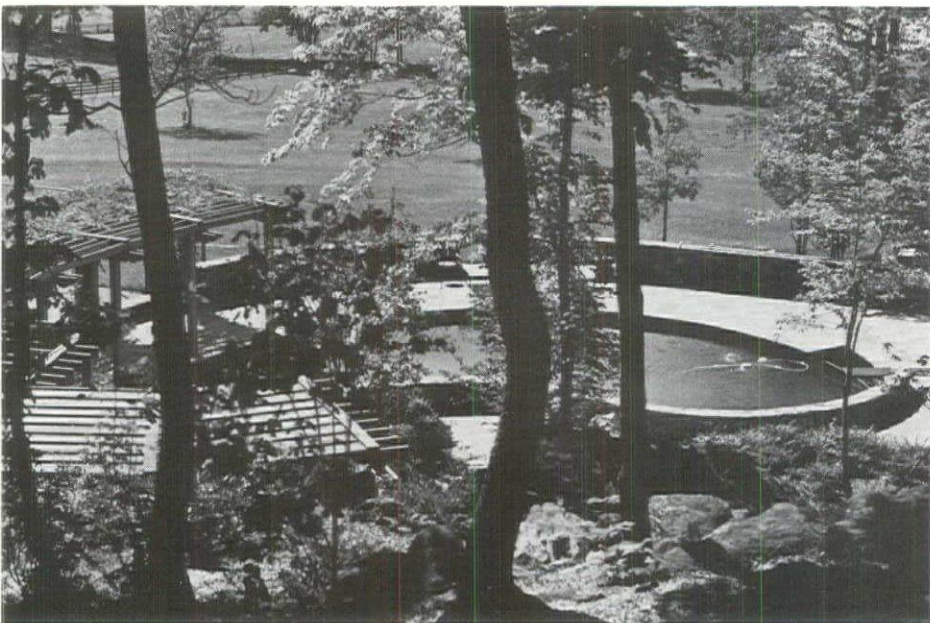
With a slope ranging between 10 and 25%, the site would normally not be considered suitable for the construction of a pool and tennis court. But, from this challenge, the concept of having a series of informal terraces emerged, thus converting what formerly was a site problem into an asset. In addition, terracing has had many other advantages, including: defining and visually separating outdoor areas; separating incongruous activities; enhancing views of the pasture and mountains; eliminating the visual dominance of the tennis court; providing a transition from the wooded slope to the pasture; and creating visual interest and variety.

The focal point of the garden is the swimming pool, built in a modified kidney shape, with the



FIGURE





decking at two different levels to better fit the hillside and separate the water activities from the "dry" activities above. At its eastern end, large boulders, excavated from the property, have been placed at a precise angle to simulate existing outcroppings in the hillside above. Water is fed to the pool between two vertical boulders, bubbling out over a horizontal rock in the foreground. Behind the rock outcrop is a wet bar, built as part of a retaining wall. A pergola shades the bar and extends out over the lower pool deck, covering one of two tennis viewing areas. The end of the pergola is designed to carry the viewer's eye to the Blue Ridge Mountains in a "borrowed landscape" fashion.

The tennis court is separated from the pool area by two levels—a drop in elevation of nine feet—thus obscuring it from view. Below the court is a 300-foot "ha-ha" wall which eliminates the need for a fence between horses grazing in the pasture and the court area.

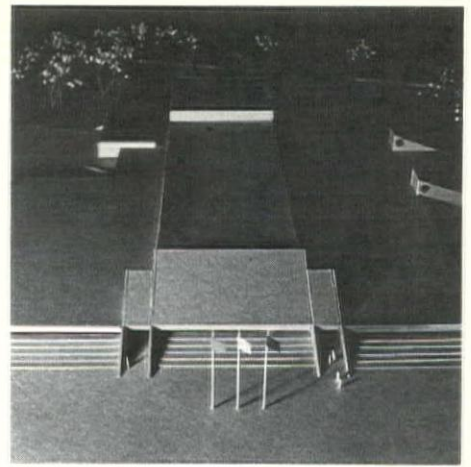
The award was presented to Barry W. Starke, ASLA, landscape architect and principal of Earth Design Associates, at a recent ASLA Virginia awards banquet held in Springfield. It cites the firm for the successful solution of a difficult problem—construction of the pool and court on a slope normally considered too steep for such additions—and for overall design that is sensitive to the surrounding Piedmont countryside.

Jurors of the 1980 competition were: architect Pete Anderson, AIA, Principal, Glave Newman Anderson & Associates, Inc. of Richmond; landscape architect Fred Fay, FASLA, former director of the Richmond Redevelopment and Housing Authority; and landscape architect Harry Porter, ASLA, chairman, Department of Landscape Architecture at the University of Virginia.

Subcontractors & Suppliers

Gustin Gardens, Inc., Gaithersburg, MD, landscaping contractor; McCanless Construction Co., Inc., Middleburg, paving contractor/tennis court; Crider & Shockey, Inc., Leesburg, concrete supplier; Riverton Corp., Front Royal, mortar; Julius Blum, New York, handrails; Middleburg Millwork, Inc., Middleburg, millwork; Tolson Appliance Center, Inc., Warrenton, equipment; Wieland Construction Co., Falls Church, swimming pools; L. J. Foley Plumbing & Heating, Inc., Warrenton, plumbing contractor; Carlin Thorpe, Inc., Marshall, electrical contractor (Kim/Lightolier/McPhilben lighting fixtures); Warrenton Building Materials Co., Inc., Warrenton and Wilson Brothers Lumber Co., Warrenton, general building materials.





Garrisonville Elementary-Middle School

Stafford County

Brown/Ryon Associates, Ltd.—Architect

Mechanical Engineer, Strickler Associates • Electrical Engineer, Strickler Associates • Structural Engineer, Allison, McCormac & Nickolaus • Civil Engineer, Ross & Rance, Ltd. • General Contractor, Kenbridge Construction Co., Inc.

Rapidly growing Stafford County needs both a new 600-student elementary school and a new 1,000 student middle school. Utilizing a concept developed by the architects in three previous projects, middle and elementary schools are incorporated into a single structure. Each school acts independently, but shares certain common facilities.

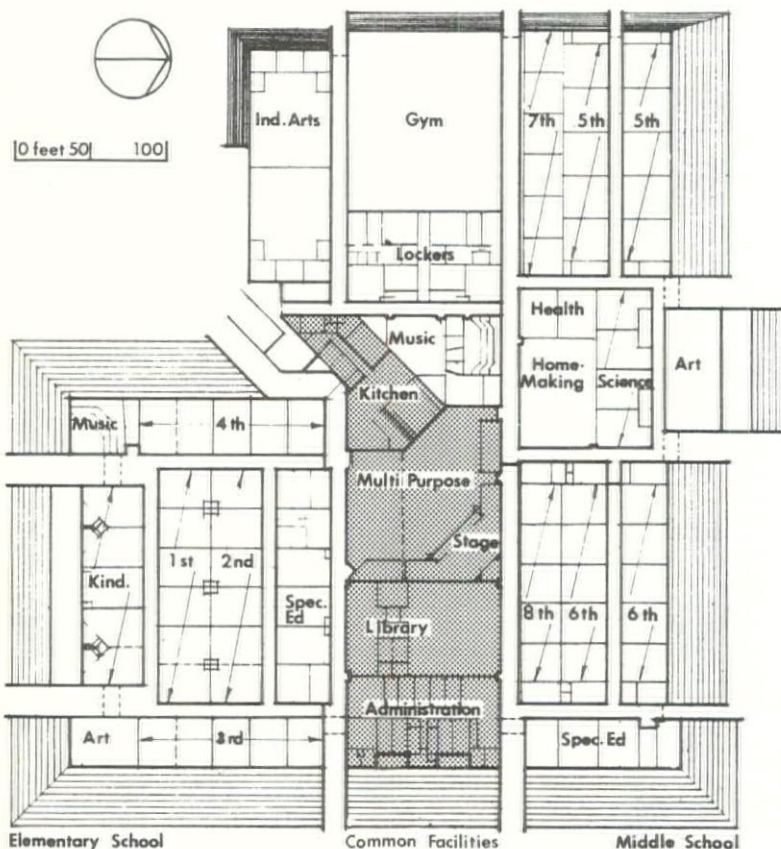
A combined school

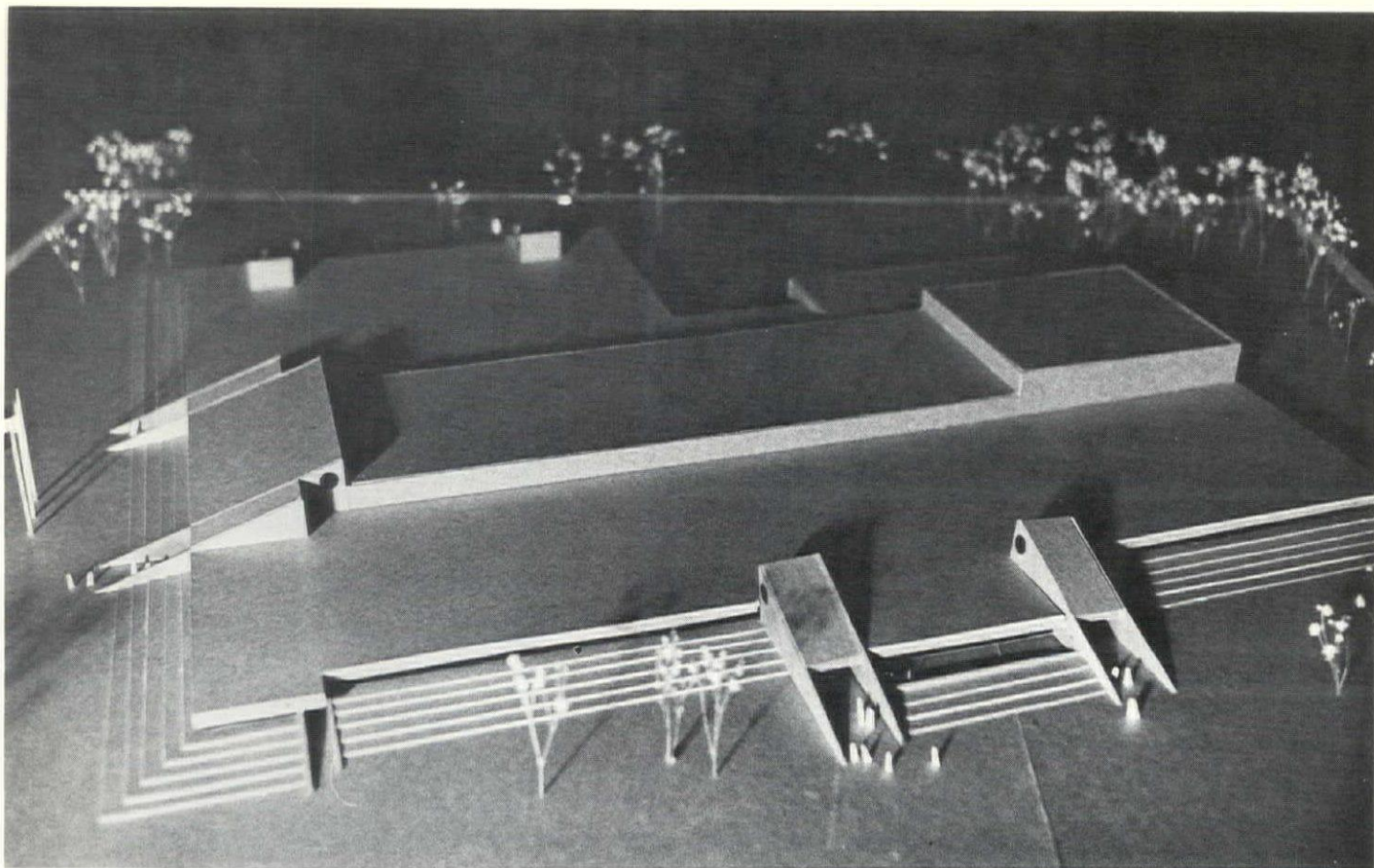
The design concept for the Garrisonville Elementary-Middle School is simple. It is founded on three elements: use, cost, and energy.

As little as seven years ago, energy played only a secondary role in shaping buildings. Today, as our dependence on mechanical technology becomes painfully obvious, we are looking for other answers. We are realizing that mechanical equipment is just one method of environmental control. There are others. Balanced design takes into account the uses and limitations of both nature and technology.

This is a highly energy efficient building. It goes far beyond just being well-insulated. It is oriented and massed to counteract the chilling effect of prevailing winds and to take advantage of beneficial sun angles. High walled spaces occur at the center, surrounded by the lower portions of the building to cut the exposed exterior wall surface area. Screen walls are used as windbreaks at all entrances. Earth berms are placed around the exterior walls to serve as natural insulators and to reduce the wall exposure.

Masonry walls, a concrete roofing system, and heavier-than-normal roof gravel form a massive building shell. Mass delays heat flow. Because it takes longer for heat from the summer sun to pass through this mass, less unwanted heat enters the interior. And in winter, heat generated within the school, stays in; it does not





pass through as readily. Insulation placed on the outside of the wall and roof surfaces enhances this effect.

With many rooms not on an exterior wall, glass areas are reduced and concentrated. Windows are operable for natural ventilation and glazed with double-pane tinted insulating glass. Overhangs are placed at most glass areas—shading the glass in summer when sun angles are high, but allowing beneficial winter sunlight to enter when sun angles are low.

The roof, fascia, and exposed wall surfaces are light colored to *reflect* the heat. Walls under overhangs—which catch winter sun's rays—are dark to *absorb* heat. Vestibules, serving as "air locks," are located at all major entrances.

The mechanical system incorporates proven energy conserving features including local thermostatic control with central override, central night setback, and an economizer cycle for "free cooling."

The second element: cost

There are always two costs: the building cost and the operating/maintenance cost. A decision already made—to build a combined school—saves half the cost of an elementary school. Site costs are saved. Costs for otherwise duplicated facilities—that can be shared—are saved.

The choice of construction—masonry and concrete—allows savings in several ways. It allows greater fire areas—areas enclosed by a fire wall. Fire walls are expensive. Fire doors are expensive. Greater fire areas means fewer fire walls, fewer fire doors—real savings.

With much of the building set behind earth berms, no special architectural treatment is required on these walls. Zero maintenance cost. And where exposed, the masonry requires virtually no care.

The major roofing material—a single homogeneous plastic sheet covered with gravel—eliminates most of the problems with standard built-up roofs, at only a fraction more in initial cost. Because this plastic stretches, the problems of structural movement and temperature variation can be easily accommodated. There are no multiple layers to crack or to trap moisture.

Limiting the amount of glass, besides saving initial cost for the windows themselves, allows a reduction in mechanical equipment sizes and a reduction in operating costs.

Instead of gypsum board—with a cost that is one of the most rapidly inflating, the majority of interior walls are painted concrete block—tough and easily maintained.

Use of electrical mechanical systems conserves the space and funds otherwise required for boilers, stacks, and tanks. It is cleaner (saving on maintenance costs). It is available. And although it currently is a more expensive fuel, the astronomically escalating costs of other fuels (and the best estimates) foretell an eventual equality of cost.

The final element: use

A school has to serve its function well. Space must be used efficiently. A one-story scheme offers a number of advantages. Exit stairways and elevators—unproductive and expensive spaces—are eliminated. Safety is enhanced—cutting down on accidents and allowing better emergency escape. It eases use by the handicapped. (The building is fully usable by the handicapped.) And being one-story, and bermed, the apparent size of the building is reduced; it is brought down to a more human scale.

Double loaded corridors are used throughout to make circulation space work double duty. Combined use spaces are arranged linearly along the central spine of the building. The spine

both divides and unites the schools. Each school can operate independently of the other on its side of the spine.

High wall heights are used where dictated by specific required clearances, as in the gym; in large size spaces, so they do not feel oppressive; and at major entrances, to house mechanical equipment and to mark their functional importance.

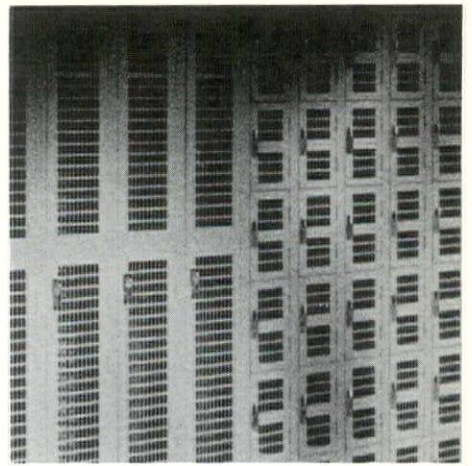
Taken together, these three elements: use, cost, and energy, translate into a state-of-the-art design, one fully reflective of the times.

Kenbridge Construction Co., Inc. of Kenbridge is general contractor for the school.

Subcontractors & Suppliers

From Richmond are: Liphart Steel Co., Inc., steel supplier/erection/joists/roof deck; J. B. Eurell Co., other roof deck; American Door & Glass, Inc., glass & glazing contractor; Ar-Wall, Inc. of Virginia, windows; Manson & Utley, Inc., acoustical treatment & resilient tile; DMA & Associates, Inc., carpet; M. P. Barden & Sons, Inc., painting contractor, special wall finish & wall covering; Harris Heating & Plumbing Co., plumbing/heating/ventilating/air conditioning contractor; and John G. Kolbe, Inc., food service equipment.

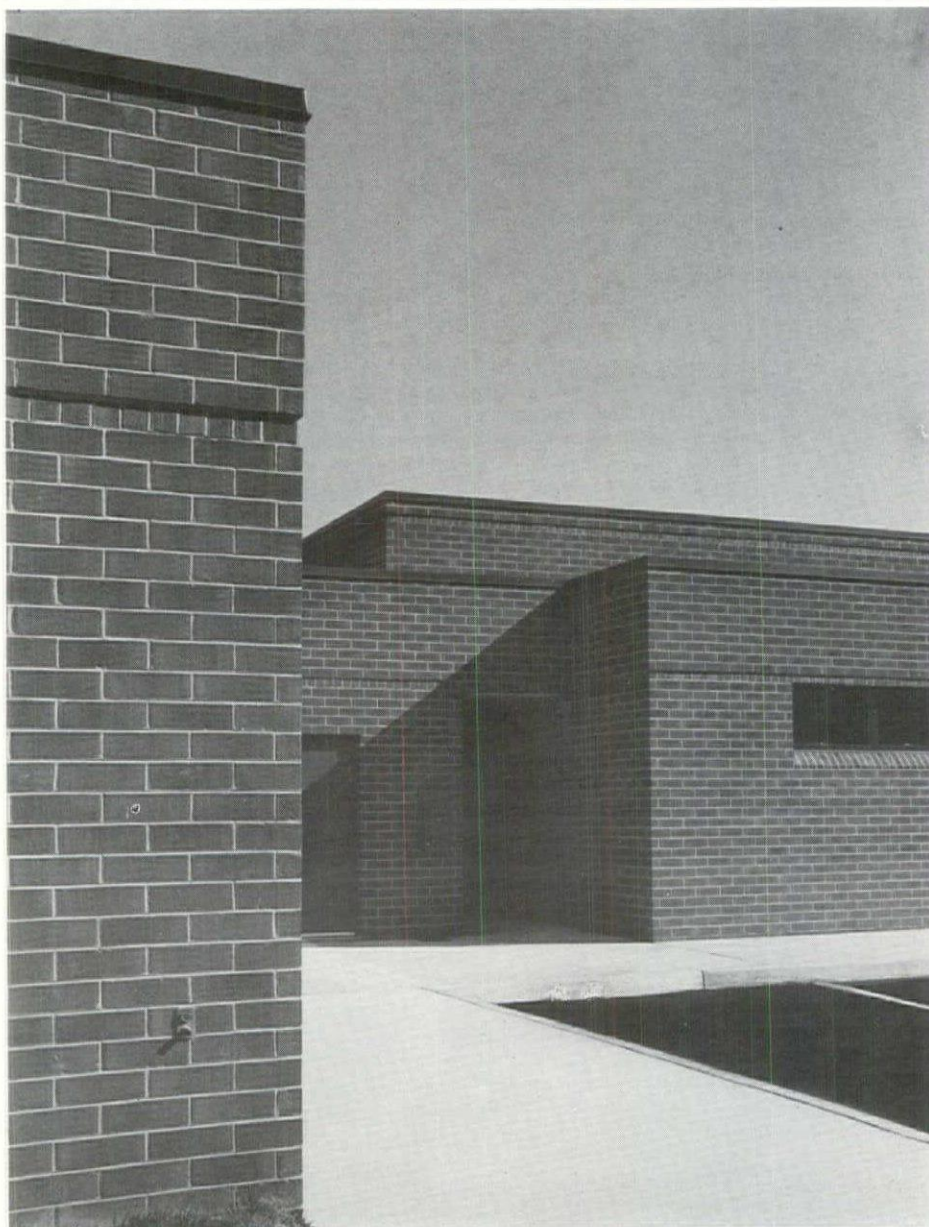
Others are: Collins Contracting Co., Inc., Fredericksburg, excavating; Nova Turf Center, Falls Church, sodding; Sam Finley, Inc., Chantilly, paving contractor; Bat Masonry Co., Lynchburg, masonry contractor; Gupton Insulation Co., Inc., Clarksville, waterproofing, roofing & sheet metal; R. B. Caulking Co., Alexandria, caulking; American Steel Products Corp., Woodbridge, metal doors & frames; Yeatman Architectural Hardware, Clinton, MD, hardware supplier; Virginia Plastering Co., Fredericksburg, plaster contractor & gypsum board contractor; and Hildenbrand & Carr, Inc., Stafford, electrical contractor.



Field House and Music Facility

Greensville County High School, Emporia

Fraher and Harrison—Architects



Mechanical Engineer, CEK, Inc. • Electrical Engineer, CEK, Inc. • Structural Engineer, Dunbar, Milby & Williams • General Contractor, Howard Davis Construction Co., Inc.

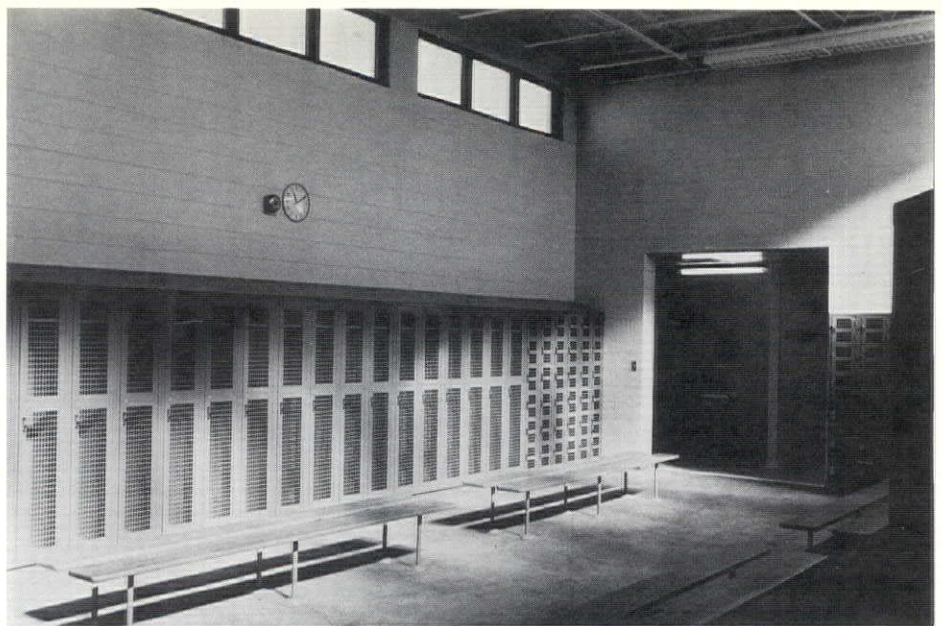
The recently completed Field House and Music Facility at Greensville County High School in Emporia contains approximately 12,700 sq. ft. of area. The music department, which occupies about a third of the total area, was relocated from an older outmoded building on the High School grounds. While the music facility shares certain mechanical areas with the remainder of the building, it is functionally independent.

The music department contains a large rehearsal room with a high ceiling, several smaller practice rooms for individuals and ensembles, separate storage rooms for uniforms and musical instruments, a music library, a director's office, and other support spaces.

The Field House portion of the building is located adjacent to the School's athletic field and contains locker room facilities for both home and visiting teams, public toilets, concession space and an officials' locker room.

Although the primary function of the locker rooms is to serve the outdoor team sports, the building program called for the spaces to be used by physical education classes during certain times and extensive summer usage by community softball and baseball leagues. Each locker room area contains toilets/shower areas, coach's office, trainer's room, laundry, weight lifting, equipment storage rooms, and a general purpose classroom which can be used by the team to review game films and strategies. The locker room features high clerestory windows to provide natural light and ventilation.

Included in the general construction contract were new athletic field lighting, a new press



box, and improvements to an existing ticket building.

Howard Davis Construction Co., Inc. of Kenbridge was general contractor and handled excavating, seeding, etc., foundations, concrete work, masonry work, carpentry and gypsum board.

Subcontractors & Suppliers (Richmond firms unless noted)

Expert Fence Co., fencing; Bowker & Roden, Inc., reinforcing steel; Garrett, Moon & Pool, Inc., Blackstone, concrete supplier; Boren Clay Products Co., Pleasant Garden, NC, masonry manufacturer; Redford Brick Co., Inc., masonry supplier; Riverton Corp., Riverton, mortar; Hercules Steel, Jarratt, steel supplier/joists; Martin Fireproofing Corp., concrete fiber roof deck; Miller Manufacturing Co., Inc., millwork; E. S. Chappell & Son, Inc., caulking & weatherstripping; and L. H. Wingfield Roofing & Metal Co., Kenbridge, built-up roof.

Also, American Steel Products, Farmington, NY, metal doors & frames; American Door & Glass, Inc., windows & glazing; Pleasants Hardware, hardware supplier & toilet accessories; Oliva & Lazzuri, Inc., ceramic tile; Manson & Utley, Inc., acoustical treatment, resilient tile & carpet; Chapman & Martin, Inc., Amelia, painting contractor; M. A. Bruder & Sons, Inc., paint manufacturer; Greensteel, Inc., Lorton, tack & chalk boards; Cates Building Specialties, specialties; J. H. Pence Co., fixed equipment; Daniel Brothers, Lawrenceville, plumbing contractor; Climate Control, Inc., South Boston, HVAC contractor; Associated Electrical Service, Inc., electrical contractor & athletic field lighting.



Arthur Ashe, Jr. Athletic Center

Richmond

Moseley-Hening Associates, Inc.—Architect

Landscape Architect, Watkins Nurseries, Inc. • Mechanical Engineer, Hankins and Anderson, Inc. • Electrical Engineer, Hankins and Anderson, Inc. • Structural Engineer, Torrence, Dreelin, Farthing & Buford, Inc. • General Contractor, Barker Construction Co., Inc. • Photographer, Huffman Studio

Construction has begun on what is to become the home basketball court and indoor track for Richmond's public high school complexes. The new 72,500 square foot Arthur Ashe, Jr. Athletic Center will house facilities for basketball, track and field, wrestling, and other school activities.

Initially, the facility was planned for construction at one of the area's major high school campuses. After evaluating the various sites, it was determined that a more centrally located, less residential, area would be more appropriate.



riate. This led to the consideration of Richmond's Arena for renovation to meet the comprehensive design program. A study of this existing building was undertaken by the architect to determine the feasibility of converting the Arena compared with construction of a new building.

The study revealed that the Arena would need extensive alterations to functionally meet the owner's program. Renovation would have taken the Arena nearly to its structural skeleton and once completed the renovated facility would have cost considerably more, to meet the same program as a new building. Thus, Richmond Public Schools made the decision to build a new facility.

The site located at the corner of North Boulevard and Robin Hood Road was transferred to Richmond Public Schools by the City Council. Once planning and design began, it became more apparent that the new building was the most cost-effective approach the School Board could have taken.

The steel frame building will have an exterior skin of brick and metal siding and will utilize earth berms for reduction in energy consumption. The initial construction has been designed to meet or exceed current energy codes and will be capable of receiving a solar hot water system to provide 50% of the facility's hot water needs.

When completed, the Center will hold a full size basketball court, 6-lane 145 meter track (11 laps will equal 1600 meters or nearly one mile), a 55 meter dash straight away, indoor shot put area, long and triple jump pits, pole vault space,

and a high-jump area. An electronic scoreboard will display the results of competition in these sports as well as wrestling. Recessed floor pits will receive structural covers, flush-finished to match the surrounding permanently bonded synthetic floor. The resulting track and field area will provide Richmond high school students with one of the finest indoor tracks in Virginia.

Supporting areas will ultimately include four shower/locker groups with space for 35 team members in each. A small administrative suite is to be located near the admission area. Public toilets, building maintenance areas, storage, and other amenities are distributed around the building's interior. Two concession stands will be built initially with space roughed-in for two more.

Spectators will be able to view the athletic events, as well as commencement exercises from two banks of bleachers, each 28 rows high and 120 feet long. The ultimate capacity will be 5400 spectators for basketball and 1500 to 1800 for track and field events. The bleachers will be electronically operated, telescoping, wall-mounted supplemented by additional small mobile units and floor chairs.

Barker Construction Co., Inc. of Richmond is general contractor and is handling foundations, concrete work, concrete supply and prestressed concrete.

Subcontractors & Suppliers (Richmond firms unless noted)

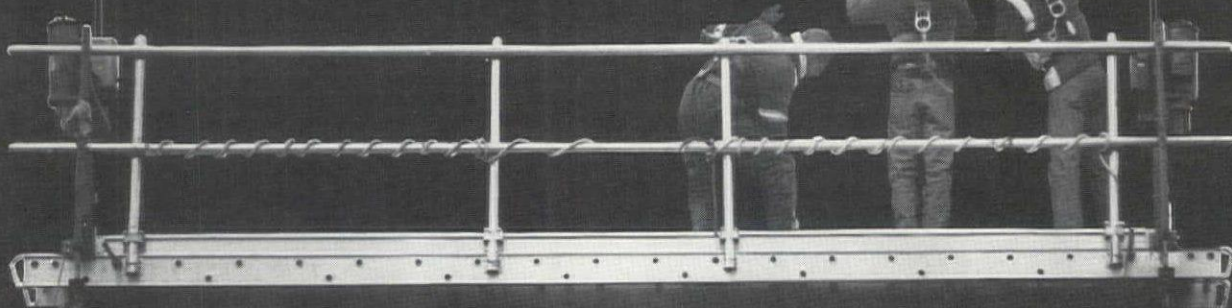
Seaboard Contractors, Inc., Mechanicsville, excavating & paving; Watkins Nurseries, Inc., Midlothian, sodding, seeding, etc., landscaping

& landscaping contractor; Lynchburg Steel & Specialty Co., Monroe, reinforcing, steel supplier/joists/roof deck and miscellaneous metal; Old Dominion Masonry, Inc., Ashland, masonry contractor; C. Roy Pursley Co., Inc., Chesapeake, metal siding; Richmond Primoid, Inc., waterproofing; E. S. Chappell & Son, Inc., caulking; Willard L. Council Roofing, Inc., built-up roof, Ballasted PVC membrane roof, roof insulation & sheet metal; Richmond Glass Shop, Inc., glass; Roanoke Engineering Sales Co., Inc., metal doors & frames and specialties; and The Holcombe Co., wood doors & hardware supplier.

Also Waller Bros. Tile, Marble & Terrazzo Co., ceramic tile & moveable shower partitions; C. B. Smith Co., acoustical treatment & resilient tile; Superior Floor Covering, carpet; Martin Surfacing & Decking, Inc., Baltimore, MD, poured athletic floor; Glidewell Brothers, Inc., painting contractor/supplier; Colonial Mechanical Corp., sprinkler/plumbing/heating/ventilating/air conditioning contractor & plumbing fixture supplier; Associated Electrical Service, Inc., lighting fixtures/electrical equipment supplier & electrical contractor.

Manufacturers or suppliers of special or unusual equipment are: J. S. Archer Co., Inc., overhead doors; Augusta Steel Corp., Verona, rolling shutters; Talley Neon & Advertising Co., special signs; Greensteel, Inc., Lorton, trophy case; Richard I. Schoenfelder, Inc., Fairfax, athletic equipment; Brownson Equipment Co., Inc., scoreboard; Garber's of Richmond, Inc. T/A Overhead Door Co. of Richmond, loading dock equipment.

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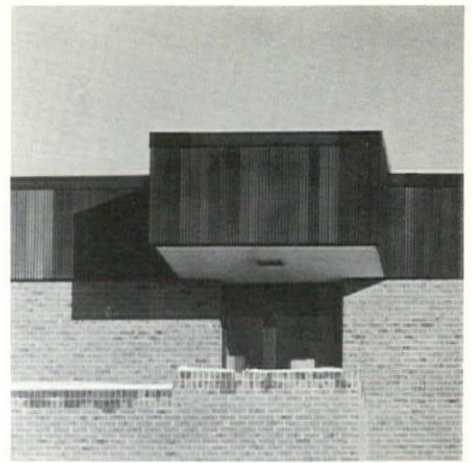
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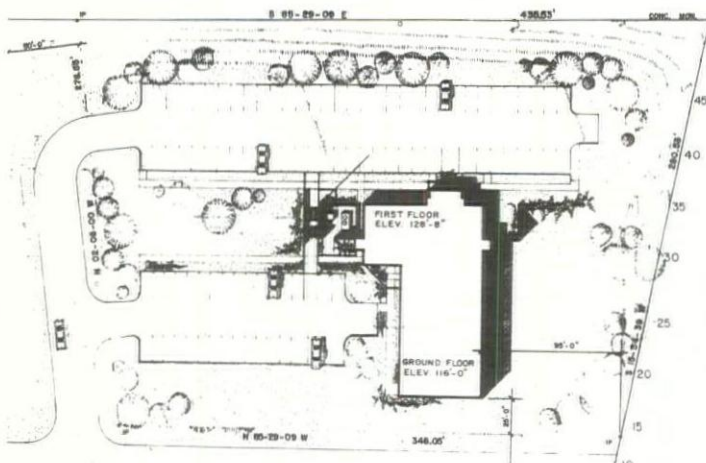
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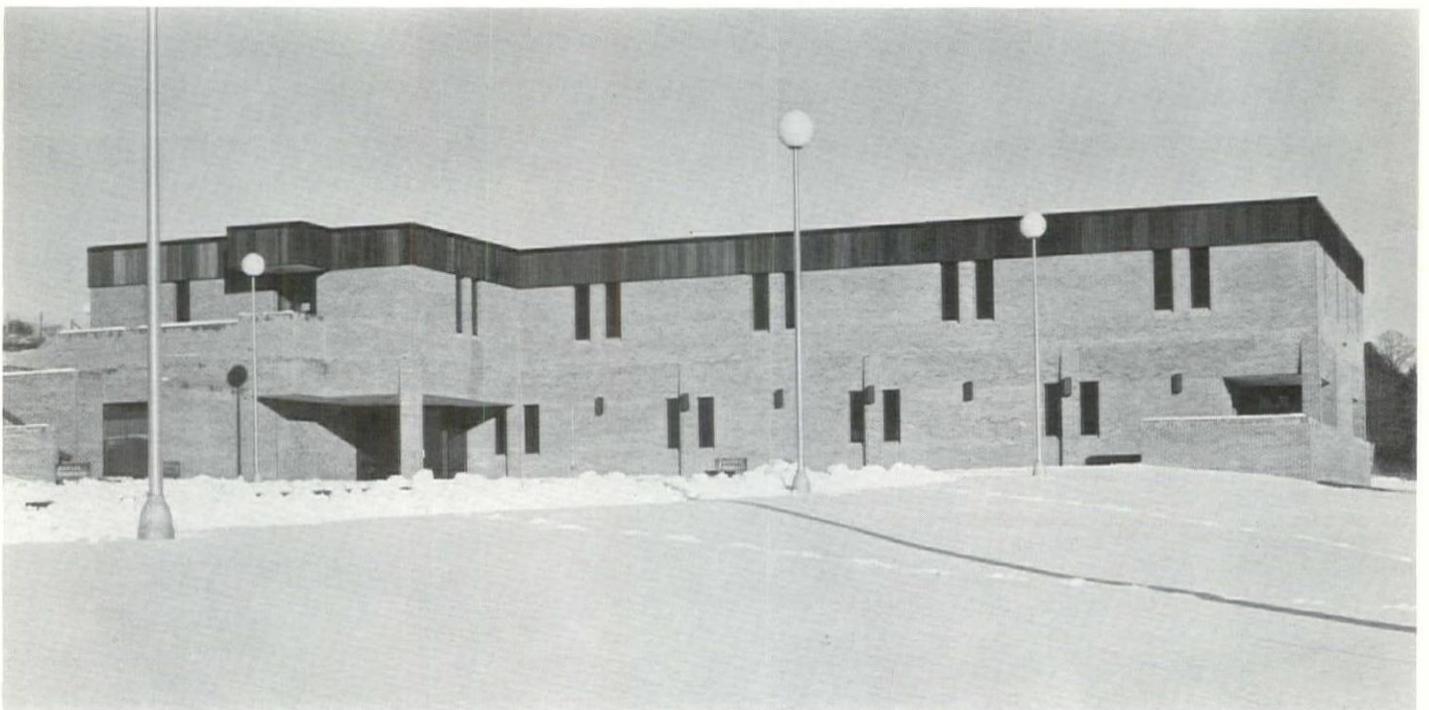
Echols-Sparger & Associates—Architect

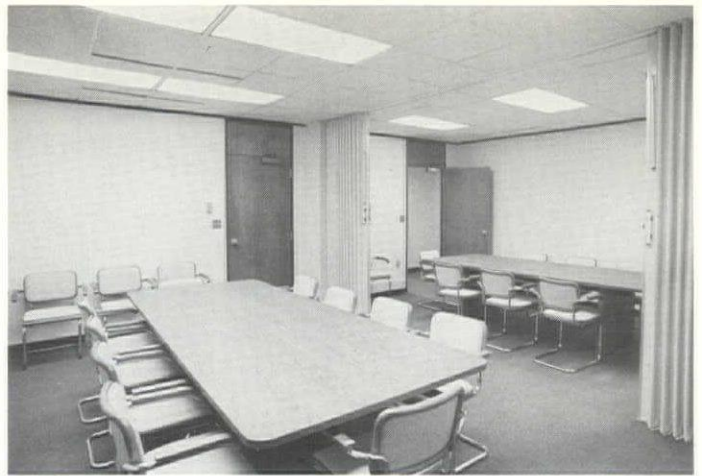


SITE PLAN

Interior Design, Van Blaricom Designs • Mechanical Engineer, Loest & Stanley, Inc. • Electrical Engineer, Loest & Stanley, Inc. • Structural Engineer, Rayford B. Smith • General Contractors, Cassel Bros., Inc. and Jamison Co., Inc. • Photography, Echols-Sparger & Associates.

The owner's program for this facility was concise and well-defined: provide complete facilities for the County Department of Social Services and the County Health Department. These departments, while contained within the same building, were to be physically separate and share no common spaces. The building, therefore, was to be primarily an office building, with such medical and dental clinic facilities as were needed by the Health Department.





The site, except for an area previously graded for a building, was a south-facing slope, with grades from 12 percent to 40 percent. A road to provide access to the site from the west was developed concurrently with the building project.

With a program requirement for approximately 100 on-site parking spaces, much of the site's area was required for parking. To minimize grading, parking lots were oriented perpendicular to the slope of the site. The site was thus terraced to provide parking in two planes separated by an approximately ten-foot difference in elevation. The area previously graded to near-level was the logical location for the building, since the rest of the site required so much grading.

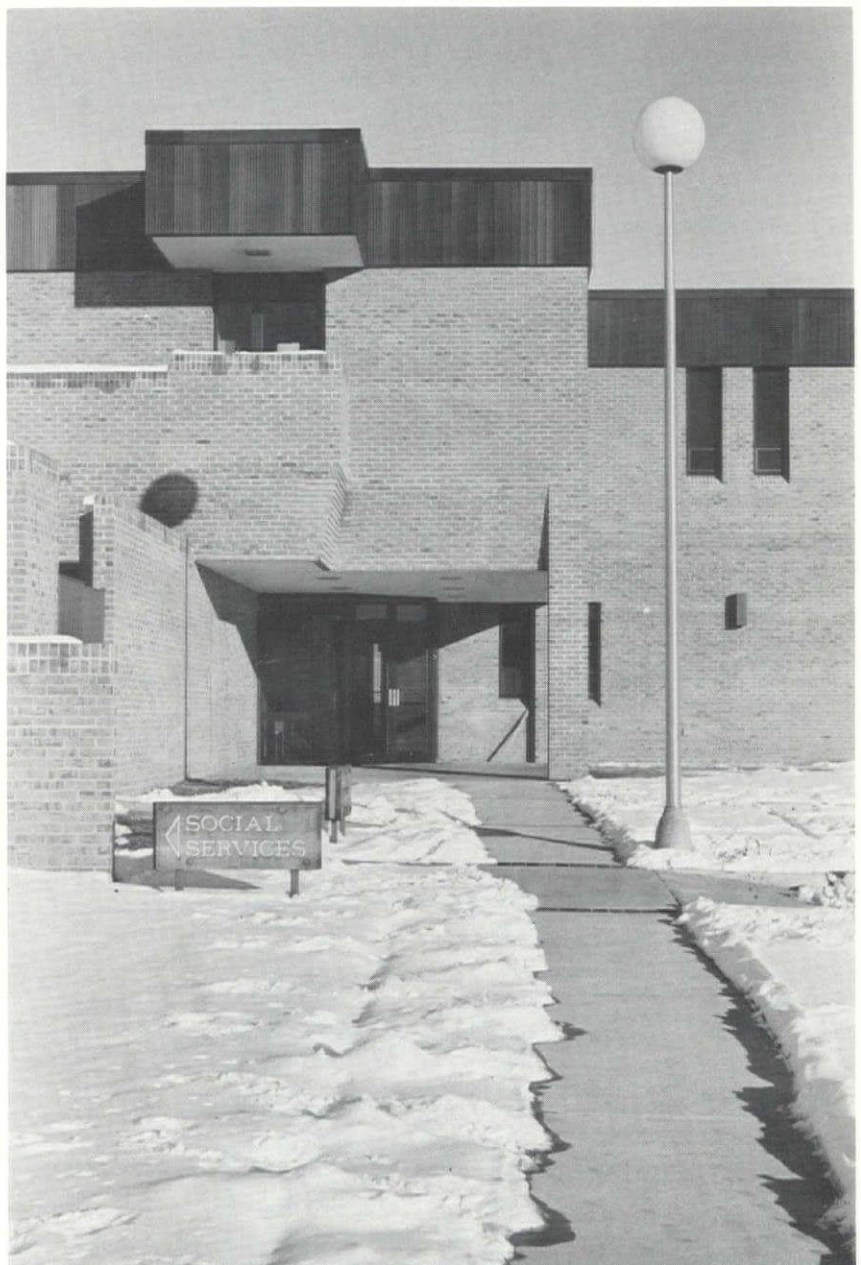
Since buildable area was limited, and to take advantage of the topography, a two-story building design was chosen. Location of mechanical space, recessing of entries, and corbeling the exterior wall eight inches between floors were methods used to balance the two levels in area, with the Health Department on the lower level and the Department of Social Services on the upper level. The two-story solution conserves a buildable area east of the structure for future expansion.

In plan, the building is straightforward, with two double-loaded corridors paralleling the main axis. In general, interior spaces have low-intensity occupancy, and perimeter spaces have been reserved for office and other frequently occupied spaces.

Privacy being a paramount requirement, full height demountable partitions were used. The demountable partitions, lay-in acoustical ceiling, and flexible duct work were utilized to facilitate relocation of partitions required by future changes in the programs of the agencies using the building.

The exterior wall is subtly articulated in brick, utilizing corbeling, rowlocks, and sloping brick window sills. An aluminum fascia ties visually with the upper-level windows to form a single design element. Brick-faced retaining walls, screens and stair guards serve as visual elements of transition between the building and its site.

The entire facility is air conditioned by a central air-handling unit located on the lower level. Heating is provided by an electric heating coil in



the main air handling unit, with electric resistance heaters and variable volume boxes at the spaces for separate room temperature control. Cooling is from an air-cooled direct expansion system. Air is returned through ceiling plenums at both floors.

The construction budget, including equipment and contingencies, was \$976,374.00. The actual cost of the completed and equipped building was \$1,024,014.00. The building's area is 16,260 square feet. The cost per square foot, including equipment and site work, was \$62.98. (This proj-

ect was funded under the Local Public Works program of the Economic Development Administration).

Cassel Bros., Inc. of Kingsport, Tennessee and Jamison Co., Inc. of Atlanta, Georgia were general contractors. Cassel Bros., Inc. also handled foundations, concrete work and carpentry.

Subcontractors & Suppliers

Marion firms were: Pruitt Landscaping, sodding, seeding, etc.; Pendleton Construction Corp., concrete supplier; and General Shale Products, masonry supplier.

From Tennessee were: Carr Brothers, Blountville, excavating; Wilson Construction, LaFollette, steel erection; Engineering Sales Corp., Blountville, steel joists and metal doors & frames; Tauscher Roof Deck Co., Bristol, steel roof deck; City Lumber Co., Knoxville, millwork & cabinets; Holston Glass Co., Inc., Kingsport, caulking, glass, glazing contractor, windows & storefront; and Greene Supply, Kingsport, hardware supplier.

Other Virginia firms were: Sugar Grove Asphalt, Sugar Grove, paving contractor; Valley Steel, Salem, reinforcing; Leonard Smith Sheet Metal & Roofing, Inc., Salem, waterproofing, built-up roof & sheet metal; Architectural Mill Work, Troutville, wood doors; W. D. Harless Co., Inc., Dryden, plaster contractor, gypsum board contractor & wall covering; Joe Rainero Tile Co., Inc., Bristol, ceramic tile; Shields, Inc., Roanoke, acoustical treatment & resilient tile; Contract Furnishings & Design, Salem, carpet; Tilley Paint Co., painting contractor/supplier (Devoe-Raynolds paint); Rosenbaum of Roanoke, Inc., Roanoke, specialties; King Business Interiors, Roanoke, equipment; Noland Co., Roanoke, plumbing fixture/electrical fixture supplier; Fred Hayes Mechanical Contractors, Inc., Bristol, plumbing contractor; Bryant Sheet Metal, Inc., Abingdon, heating/ventilating/air conditioning contractor; Westinghouse Electric Supply Co., Roanoke, electrical equipment supplier; and C. L. Ray, Jr., Inc., Daleville, electrical contractor.

Others were: Fritz Structural Steel, Valley Head, AL, steel supplier, miscellaneous metal & handrails; Bonitz Insulation Co. of Carolina-Tennessee, Inc., Asheville, NC, roof insulation; and General Electric Co., Plainville, CT, electrical equipment supplier.

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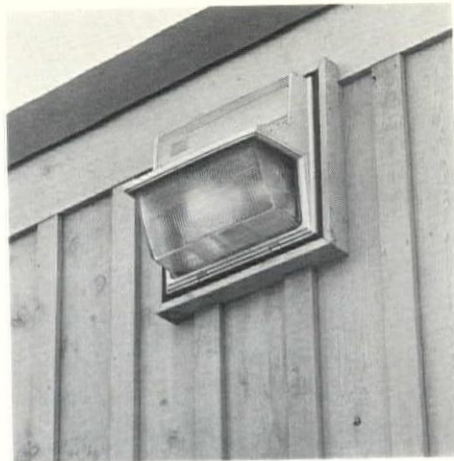
Acoustical Ceilings

Drywall

Demountable Partitions

Flooring

Carpet



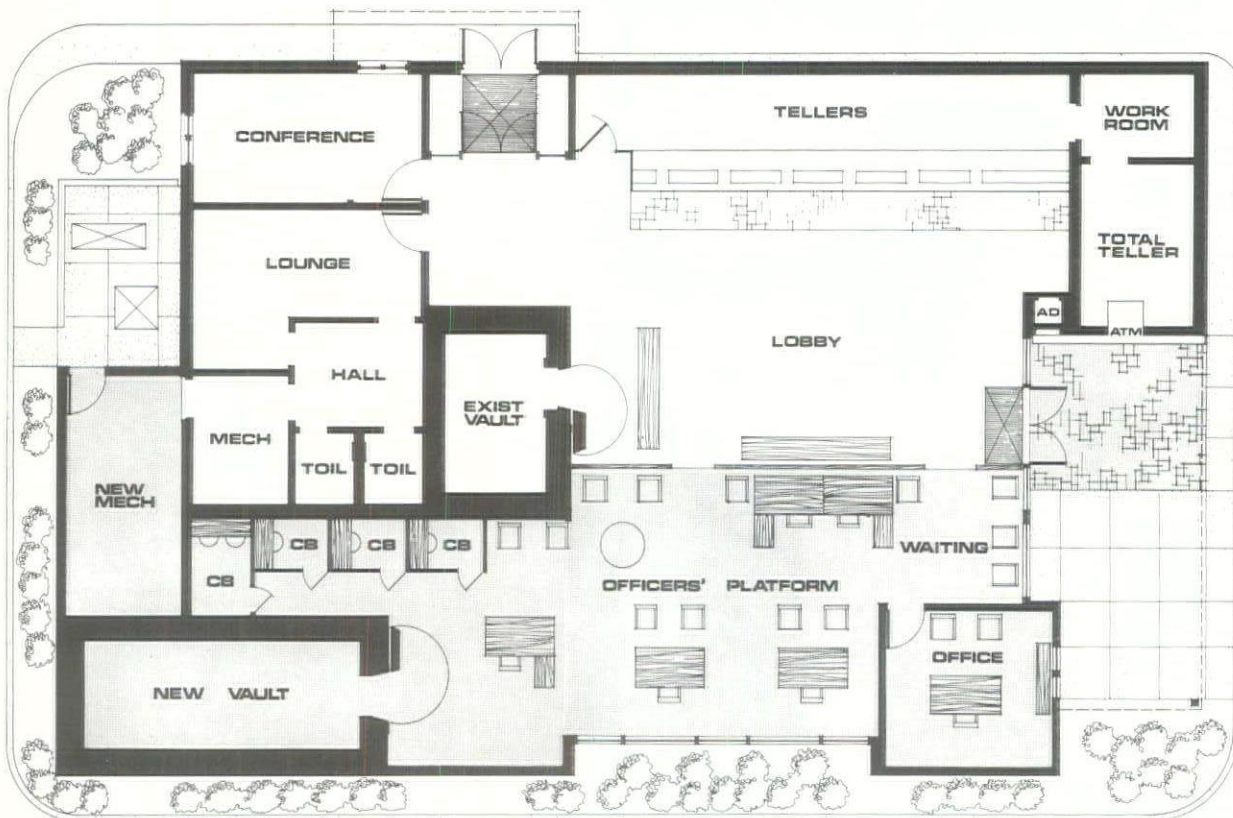
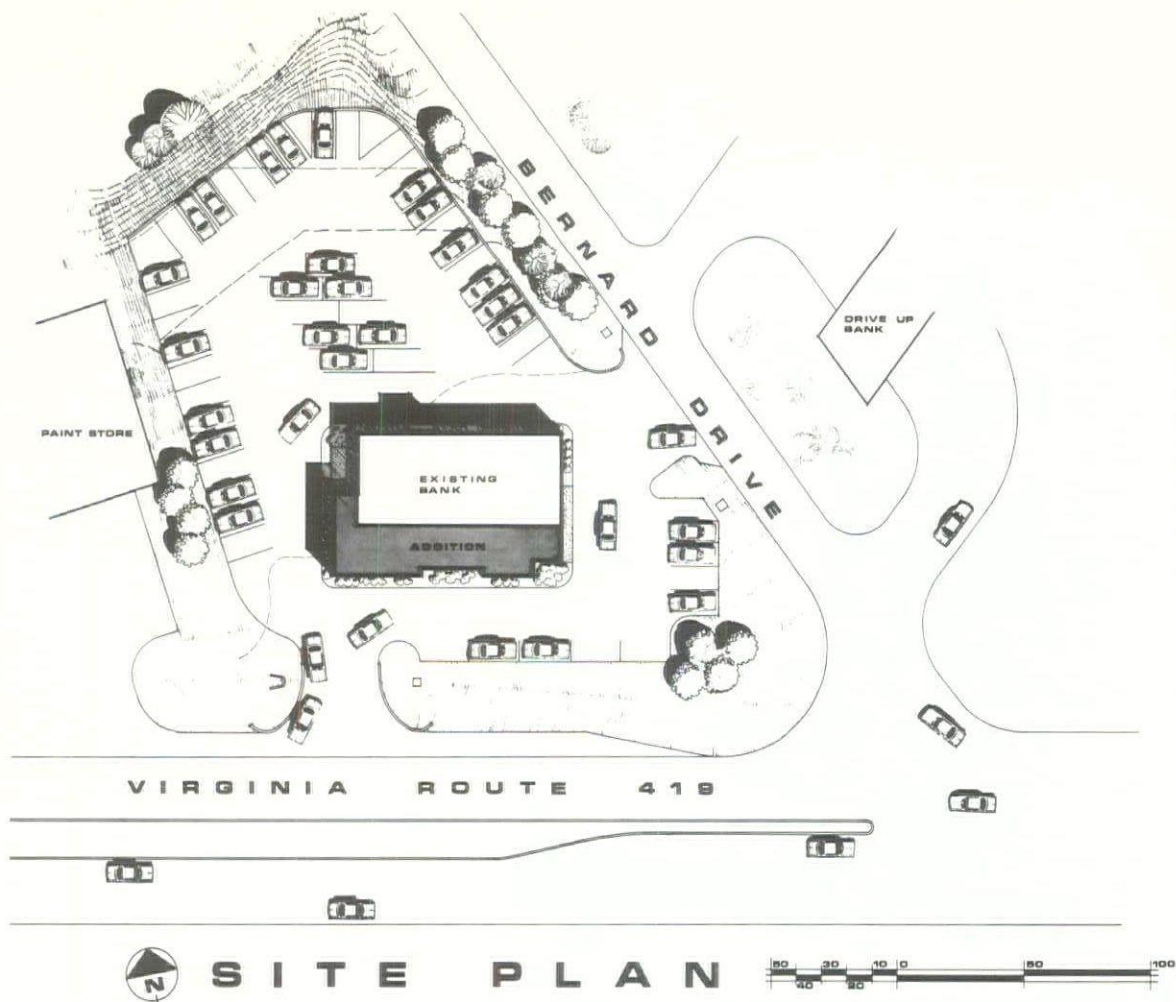
First National Exchange Bank

Expansion, Roanoke

Byron R. Dickson—Architect/Engineer

Project Manager, Jerome D. Henschel • Landscape Architect, Land Design Associates • Interior Design, King Business Interiors—Cathy Creasy, ASID • Mechanical Engineer, Lawrence E. Perry & Associates • Electrical Engineer, Lawrence E. Perry & Associates • General Contractor, Days Construction Co., Inc. • Photography, Don Hall Studios.





Located in a high urban growth area, the 419 office of the First National Exchange Bank has increased customer service threefold since construction of the original facility several years ago. A desperate need has steadily materialized for additional space to accommodate tellers, safe deposit, storage and officer personnel. Unanticipated growth over the years has also created the need for a more efficient parking arrangement together with improved customer circulation to and from the facility. With the coming of 24-hour banking services, provisions were needed to house the necessary equipment and provide customer access to the automated banking system.

To solve the problems created by these growing pains, it was decided to expand the existing facility and create new, more efficient circulation, both vehicular and pedestrian. More parking space was added to the north and a new customer entrance has been provided to accommodate the increased walk-in traffic. The existing building was expanded toward the south to take advantage of those existing functions which needed additional area. Also, the configuration and direction of this new increment provided better all around security for the total facility.

The expansion space provides for a new manager's office, security vault which will double the amount of previously available safe deposit boxes, new coupon booths and two additional teller stations.

Construction methods were selected to provide economical systems with excellent life cycle cost characteristics. The exterior wall system is wood frame construction wrapped in insulated sheathing. The exterior closure is composed of western red cedar boards and batten strips applied vertically over the new construction and the existing masonry work. The roof system is composed of wood trusses spaced



two feet on center with a layer of sheathing, insulation and a single ply membrane roof providing moisture protection. Custom made window and door frames were designed to match the existing construction. Double glazing is used throughout. Exterior detailing of louvers and other trim devices was designed to blend with the wood treatment and accentuate the exterior motif. This approach was followed through with the design of a wood equipment screen which protects the outdoor mechanical units and provides the required free air movement for proper operation.

The open interior spaces are detailed in oak with furnishings and bank related equipment selected to match the species. In addition to the new construction, all existing interior spaces have been renovated using vinyl wall covering, acoustical ceiling tile and floor materials composed of carpet and slate.

A new HVAC split system air conditioning unit is provided with a gas fired hot water coil. The system is controlled by either heating-only or

cooling-only thermostats. The existing unit still serving the original building was converted from an electric to a gas fired hot water coil. Both gas heating systems use an electronic ignition. Both zones have a night setback which is operated by time clock.

Walls are insulated with R19 batts and R4 insulating sheathing. Total wall resistance is R25. A draft barrier entry is provided at the north entrance lobby.

The original bank facility provided 2700 square feet, and the additional 1900 square feet will bring the total enclosed area to 4600 square feet. Construction began in July of 1980 and was completed in December of the same year.

Days Construction Co., Inc. of Salem was general contractor and handled excavating, sodding, seeding, etc., foundations, concrete work, masonry work, steel erection, plywood roof deck and carpentry. The owner handled landscaping.

Subcontractors & Suppliers
Salem firms were: Valley Steel Corp. reinforcing;

ing; Salem Ready Mix Concrete, Inc., concrete supplier; Bolling Steel Co., steel supplier; Timber Truss Housing Systems, Inc., structural wood-trusses; Diamond Glass Corp., glazing contractor & metal doors & frames; Acoustical Services, Inc., gypsum board contractor, acoustical treatment & resilient tile; and Carpet Village Inc./Contract Furnishings & Design, carpet.

From Roanoke, were: S. R. Draper Paving Co., Inc., paving contractor; Lightweight Block Co., Inc., masonry supplier-CMU & mortar; Fabricated Metals Industries, Inc., miscellaneous metal; South Roanoke Lumber Co., millwork; Valley Roofing Corp., other roofing & roof insulation; Skyline Paint & Hardware, Inc., hardware supplier; Feather Tile Co., Inc., slate; Hesse & Hurt, Inc., painting contractor & wall covering; PPG Industries, Inc., paint supplier/manufacturer; Weddle Plumbing & Heating, plumbing/heating/ventilating/air conditioning contractor; and Newcomb Electric, Inc., electrical contractor.

Also, Blacksburg Insulation Co., Inc., Blacksburg, wall insulation.

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Cynthia takes part in national and international riding competitions and is on the board of directors of two riding foundations, the Winslow and North American. She says, "Developing skills in riding produces an unparalleled sense of accomplishment and independent participation—an environment that allows people to deal with people."



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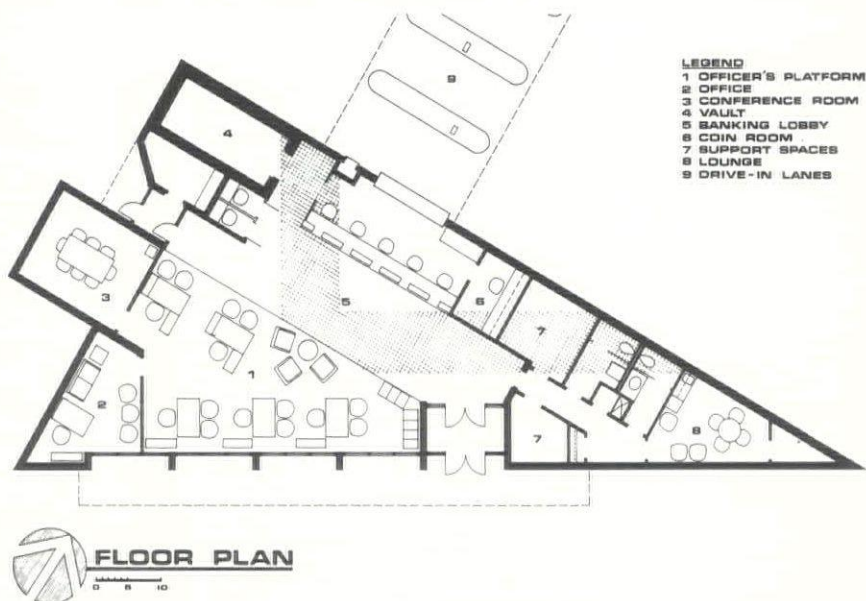
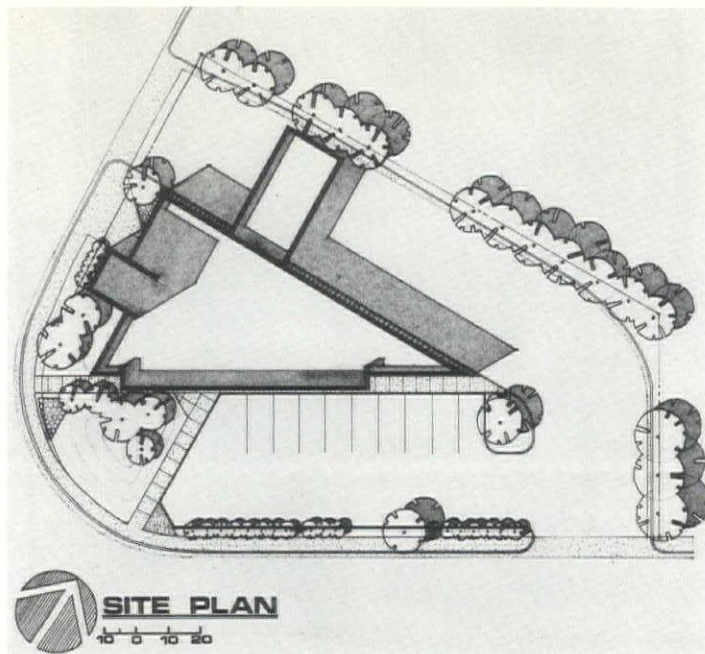
First & Merchants National Bank

Hopewell

Moseley-Hening Associates, Inc.—Architect

Mechanical Engineer, William G. Brandt, Jr. & Assoc., Inc. • Electrical Engineer, William G. Brandt, Jr. & Assoc., Inc. • Structural Engineer, Dunbar, Milby & Williams • General Contractor, Heindl-Evans, Inc. • Photography, Huffman Studio.





When First & Merchants National Bank acquired property for a new facility at the corner of Main Street and East City Point Road in Hopewell, it became one of the first active participants in the revitalization of the city's commercially-concentrated downtown. The program objectives called for the new bank to be functional and easy to use, and to have a strong, positive visual impact on the improving area.

The one-half acre site was of an irregular shape with setback requirements further limiting the space allowed for the building and site circulation. These factors served to evolve a

triangular shape for the building and thus created a rather dramatic visual anchor for the busy corner.

Vehicular traffic is easily directed to customer parking and four drive-up banking lanes. The building is oriented on the site so that both walk-in and drive-up facilities are convenient to customers homeward bound from the city's industrial areas to the east and retail and office areas immediately to the north and south.

Inside, clean contemporary lines form patterns for efficient circulation. Five teller lines provide for prompt transactions, while more

individual financial counseling is provided for within the nearby officer's platform area.

The new F & M facilities have succeeded in becoming a major commercial anchor in the revitalization area as more and more properties continue to develop in the city's core.

Heindl-Evans, Inc. of Mechanicsville was general contractor and handled excavating, and kitchen equipment.

Subcontractors & Suppliers
(Richmond firms unless noted)

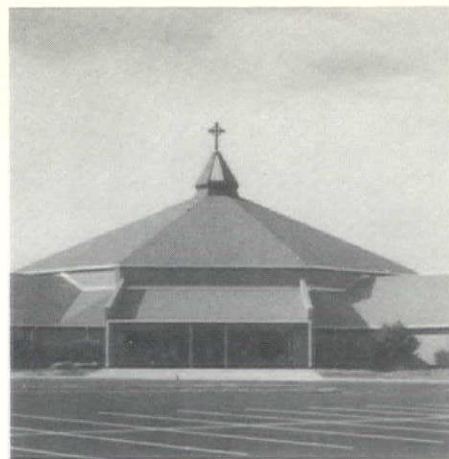
Dodson Bros. Exterminating Co., Inc., soil treatment; Short Paving Co., Inc., Petersburg,

paving contractor; Bowker & Roden, Inc., reinforcing; Scruggs Masonry, Mechanicsville, masonry contractor; Lawrenceville Brick & Tile, Lawrenceville, masonry supplier; Riverton Corp., Riverton, mortar; Roanoke Iron & Bridge Works, Inc., Roanoke, steel supplier; Guille Steel Products Co., Inc., Va. Beach, steel joists & steel roof deck; Miller Manufacturing Co., Inc., millwork & wood doors; and E. S. Chappell & Son, Inc., waterproofing & caulking.

Also, Smith Brothers Roofing Co., built-up roof, roof insulation & sheet metal; S D G, Incorporated, glass, glazing contractor, metal doors & frames and storefront; Pleasants Hardware, hardware supplier; F. Richard Wilton, Jr., Inc., gypsum board contractor; C. B. Smith Co., acoustical treatment & resilient tile; W. W. Nash & Sons, Inc., painting contractor, paint supplier & wall covering; M. A. Bruder & Sons, Inc., Broomall, PA, paint manufacturer; and Roanoke Engineering Sales Co., Inc., specialties-unit kitchen.

Others were: Cates Building Specialties, toilet accessories; Colonial Mechanical Corp., plumbing fixture supplier & plumbing/heating/ventilating/air conditioning contractor; the American E Electric Inc., Midlothian, lighting fixtures/electrical equipment supplier & electrical contractor; The Mosler Safe Co., bank equipment; and Wheeling Corrugating Co., Wheeling, WV, vault reinforcement.





Kempsville Presbyterian Church

Virginia Beach

Herman C. Grube, AIA—Architect

Located on a prime site, just a block away from the old church, this 30,000 sq. ft. all masonry building relates well with the nearby residential neighborhood.

This cross shaped plan has four wings which radiate from the 110' radial, arched, exposed wood ceiling.

The Fellowship Hall wing accommodates 400 people and serves also as a gym for basketball practice under a 50' scissors truss ceiling. The Administrative wing contains five offices and a library with a private entrance for the Pastor's office. The main Classroom wing contains eleven rooms. The fourth wing near the main entrance has four Nursery classrooms with supporting juvenile toilet fixtures and related teaching aids.

All four wings are reached from an 8' corridor surrounding the octagon shaped Sanctuary which seats 1,000. A Balcony, seating over 300, is reached by two stairs from a peripheral corridor generously lighted by skylights. The 9' oculus under the Sanctuary steeple lights and Sanctuary from its 3-sided skylite designed as a flame, a symbol of the Holy Spirit.

Several A/C heat pump zones and incremental classroom thru-wall units save energy because of their flexibility in serving the church's multiple needs.

Meticulous design of the drainage of the parking lot by Civil Engineer and Building Chairman, Wilfred P. Large, enhances the aesthetical value of the site.

Mechanical Engineer, Don E. Alcord • Electrical Engineer, D. A. Shields • Structural Engineer, Lewis H. Bridges • Civil Engineer, Wilfred P. Large • General Contractor, L. J. Hoy, Inc. • Photography, Herman C. Radford.

L. J. Hoy, Inc. of Norfolk was general contractor and handled sodding, seeding, etc., foundations, concrete work and carpentry.

Subcontractors & Suppliers
(Norfolk firms unless noted)

E. V. Williams Co., Inc., Va. Beach, excavating; Asphalt Roads & Materials Co., Inc., Va. Beach, paving contractor; Hall-Hodges Co., Inc., reinforcing & metal doors & frames; Sadler Mate-



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rials Corp., concrete supplier; Snow Jr. & King, Inc., masonry contractor/supplier & mortar; Chesapeake Steel, Inc., steel supplier/erection/joists/roof deck & miscellaneous metal; Koppers Co., Inc., Raleigh, NC, other roof deck & structural wood; and Powell-McClellan Lumber Co., Inc., millwork, paneling, cabinets & wood doors.

Also, Eastern Roofing Corp., built-up roof, other roofing & sheet metal; PPG Industries, Inc., glass, glazing contractor & storefront; Hall-Hodges Co., Inc., metal doors & frames; Greenwich Supply Corp., Va. Beach, windows; Seaboard Building Supply Co., Va. Beach, hardware supplier; Tidewater Plastering & Drywall, Chesapeake, plaster contractor & gypsum board contractor; Etheridge Tile Co., Inc., Va. Beach, ceramic tile; L. R. Brittingham Co., acoustical treatment; Colonial Painting Co. of Tidewater, Va. Beach, painting contractor; K & L Plumbing & Heating Co., plumbing contractor; Bay Harbour Mechanical, Ltd., Va. Beach, heating/ventilating/air conditioning contractor; and J. B. Basnight, Chesapeake, electrical contractor.

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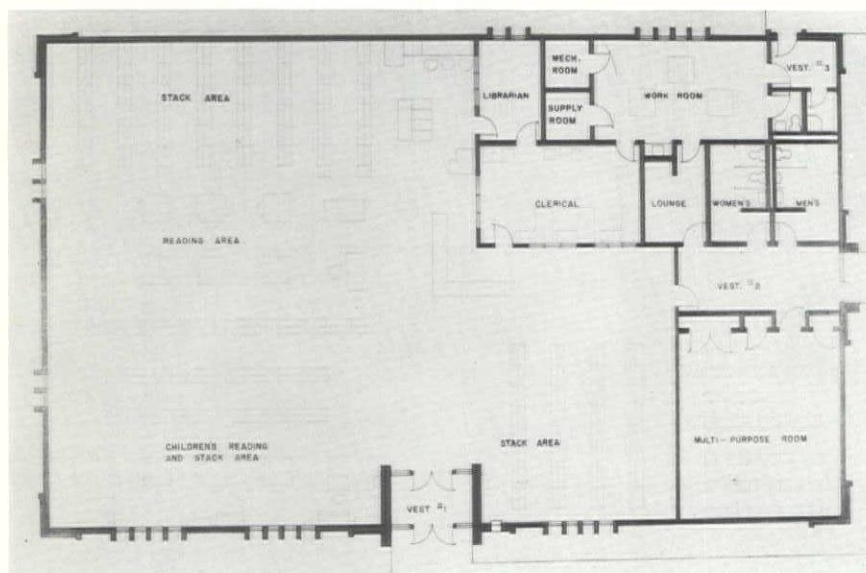
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The new library for the City of Radford was completed in March of 1980. It is another outstanding addition to the community's growing list of achievements. The library should become a complementing asset to Radford while also fulfilling a cultural need. The new facility allows space for more library, recreational, and educational activities.

The site for the Radford Public Library is located on West Norwood Street, opposite the Recreation Building and directly adjacent to the Radford Senior High School. The library is readily accessible to the public by automobile, or by foot, due to its central location within the community. There is an ample parking area, and the site is well landscaped. Provisions have also been made for possible future expansion.

An enclosed area of approximately 8800 square feet contains the building program. Some of the spaces within the library are reading and stack areas, a lounge area, a children's area, a multi-purpose room, clerical and work rooms, and a library staff lounge. The design for the library is based on a five-foot building module. By utilizing this modular grid as an ordering device and design tool, custom detailing and fabrication were minimized, thus reducing construction cost and time. Also, the building module system helped establish a well proportioned and appropriately scaled solution.

Exterior design of the building is a combination of long horizontals and short vertical lines. By breaking the facade at regular intervals with



the use of vertical brick pilasters and corners, the building maintains correct proportions and a human scale. The patterning of solids and voids, also helped define the principle elevation and main entrance of the library. The continuous fascia serves to unite and tie together the elevations while also providing weather protection around the entire building.

The structure for the new library consists of a continuous load-bearing concrete masonry exterior wall, with a row of five interior structural steel columns. The reinforcing concrete slab on grade floor was poured on compacted soil.

Structural steel beams, channels, angles, and bar joists span the roof. Supporting the structure are continuous shallow concrete wall footings and square, spread-type column footings.

Exterior walls are composed of beige-colored, split-ribbed concrete masonry, matching brick pilasters and corners, and dark-bronze hollow metal door and window frames. The roof is a combination of rigid insulation, membrane roofing, and river-rock ballast. Contrasting dark-brown fascia panels are aggregate faced exterior plywood supported by structural steel angle frames and joist extensions.

A suspended, integrated ceiling system, also based on the five-foot building module, is employed throughout the building. The ceiling system consists of acoustical tile, fluorescent lighting fixtures, and supply and return air registers. The forced-air heating, ventilation and air conditioning system is connected to two roof-top electric heat pumps. Energy conserving considerations include the use of entry vestibules, double-glazed insulating glass, perimeter slab insulation, and the limiting of unnecessary window area.

Creative Construction & Development Corp. of Roanoke was general contractor and handled foundations, concrete work, masonry work, carpentry, waterproofing and caulking.

Subcontractors & Suppliers (Roanoke firms unless noted)

Joe Bandy & Son, Inc., excavating; Superior Exterminating Co., Inc., soil treatment; S. J. Lackey, landscaping contractor; S. R. Draper Paving Co., Inc., paving contractor; Valley Steel Corp., Salem, reinforcing; Atlantic Concrete, Radford, concrete supplier; Lightweight Block Co., Inc., masonry supplier; Structural Steel Co., Inc., steel supplier/joists/roof deck & miscellaneous metal; and South Roanoke Lumber Co., millwork & wood doors.

Also, Leonard Smith Sheet Metal & Roofing, Inc., Salem, membrane roofing & sheet metal; Dynamit Nobel, Northvale, NJ, roofing membrane; Johns Manville, Denver, CO, roof insulation; PPG Industries, Inc., glass & glazing contractor; Augusta Steel Corp., Verona, metal doors & frames, windows & storefront; Skyline Paint & Hardware, Inc., hardware supplier; Harman Ceiling & Partition Co., gypsum board contractor, resilient tile & integrated ceiling; and DeHart Tile Co., Inc., Christiansburg, tile work.

Others were: Discount Carpet Center, carpet; Service Contracting of Va., Radford, painting contractor & wall covering; Roanoke Engineering Sales Co., Inc., specialties & equipment; Engineering Sales Corp., Blountville, TN, specialty signs; Lee Lines Ltd., book depository; Valley Mechanical Contractors, Inc., Christiansburg, plumbing fixture supplier & plumbing/heating/ventilating/air conditioning contractor; Westinghouse Electric Supply Co., lighting fixtures/electrical equipment supplier; and Milton Electric Service Co., electrical contractor.

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N. H. DAVIS, JR.

New President for State Blue Cross/Blue Shield

• Norwood H. Davis, Jr., 41, officially became president of Blue Cross and Blue Shield of Virginia on April 1 with the retirement of Alden E. Flory.

Davis was designated president-elect last July by the organizations' boards of directors. Since 1975, he has worked as executive vice president and chief operating officer of the Richmond-based Plans, which serve more than 1.5 million customers in eastern and central Virginia. Last year, total claims volumes reached approximately \$500 million.

Davis joined the organizations in 1968 as resident counsel, after working as an associate with the Richmond law firm of McGuire, Woods and Battle. Subsequently, he moved into management as vice president of administration and later of operations.

He is chairman-elect, a member of the executive committee, and a director of the Metropolitan Richmond Chamber of Commerce. In addition, he serves as a director of the Darden Graduate School of Business Administration Alumni Association, University of Virginia, and of the Security Federal Savings and Loan Association of Richmond.

Davis is a graduate of Hampden-Sydney College and the University of Virginia School of Law. He also completed The Executive Program of UVA's Darden Graduate School of Business Administration.

A Richmond native, Davis is a past president of the Hampden-Sydney College Alumni Association and a former director of the Robert E. Lee Council, Boy Scouts of America, the United Way of Greater Richmond, Big Brothers of Richmond, and Junior Achievement of Richmond.

In 1972, he was named to Who's Who in American Politics and selected as one of the Outstanding Young Men of America.

Prior to his retirement March 31, Flory headed Blue Cross and Blue Shield of Virginia for 11 years. During that time, enrollment grew from 817,000 to 1,552,200; administrative expenses were cut from 11 to 5 percent; and savings from corporate cost containment programs increased from \$8 million to nearly \$70 million annually. For seven of the last 10 years, the Richmond-based Plans have led all other Blue Cross and Blue Shield organizations their size in enrollment growth.

Northern Virginia ABC Announces 1981 Officers And Seminars

• The Associated Builders & Contractors of Northern Virginia is pleased to announce the selection of the following members as 1981 officers for our association.

President

Mr. Robert A. Stevens, General Contractor
Beltway Construction Company
Alexandria

1st Vice President

Mr. Thomas J. Madigan, Architect
Thomas J. Madigan, AIA, Ltd.
Arlington

2nd Vice President

Mr. Larry T. Jennings, General Contractor
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Falls Church

Secretary

Mr. James Newland, General Contractor
Eugene Thomas Construction Company, Inc.
Alexandria

Treasurer

Mr. Wade P. Whitener, General Contractor
Whitener & Jackson, Inc.
Falls Church

The Associated Builders & Contractors—a non-profit construction trade association—represents over 180 commercial and industrial contracting firms throughout the Northern Virginia area, and is affiliated with the National Associated Builders & Contractors Association which numbers over 16,000 members firms.

The association has also announced a series of seminars for the construction industry. In addition to one on Construction Safety which was held on April 9, upcoming seminars are: —"Money Management/Avoiding a Cash Crisis"—June 17, 1981, 8:30 a.m.-5 p.m. (lunch included), Bethesda Marriott Hotel, 5151 Pooks

Hill Road, Bethesda, MD 20014 (Exit 34 off 495). Speakers are: A. E. Harer, Consultant/Program Instructor and Stephen P. Darnell, Consultant, both from the Falls Management Institute. Highlights include: Measuring Cash Needs; Collecting money; Real Cost of Borrowing; Reducing Operating Expenses; Managing Cash on Hand; and Alternative Sources of Financing. Cost: Members—\$175.00; Non-members—\$200.00. Reservations must be made to ABC of Northern Virginia no later than 5 p.m., Friday, June 12. This seminar is co-sponsored by Metro ABC.

—"Construction Law"—August 28, 1981, 9 a.m.-4 p.m. (lunch included), Tysons Westpark Hotel, 8401 Westpark Drive, McLean, Virginia 22102. Speakers are: Frank L. Cowles, Jr., Victor Rinaldi and W. McCauley Arnold, all from the firm of Cowles, Rinaldi, and Arnold, Ltd. Highlights include: Labor Relations (Dual Shop Operations, Secondary Boycotts, Avoiding Union Organizing, Davis-Bacon Act, Planning & Managing Job Sites); OSHA; Affirmative Action in Construction Industry; Contract Clauses; and Damages. Cost: Members—\$30.00; Non-members—\$40.00. Reservations must be made to ABC of Northern Virginia no later than 5 p.m., Tuesday, August 12. —"Pricing & Bidding Strategy"—November 18, 1981, 8:30 a.m.-5:30 p.m. (Lunch included), Bethesda Marriott Hotel, 5151 Pooks Hill Road, Bethesda, MD 20014 (Exit 34 off 495). Speakers are: A. E. Harer, Consultant/Program Instructor and Hoyt G. Lowder, Vice President, both from the Falls Management Institute. Highlights include: Evaluating Financial Structures of Your Construction Business; Profit Budgeting; Overhead Recovery of Antilog Rates; and Variable Job Size Pricing. Cost: Members—\$175.00; Non-members—\$200.00. Reservations must be made to ABC of Northern Virginia no later than 5 p.m., Friday, November 13. This seminar is co-sponsored by Metro ABC.

To make reservations or inquiries, write or call: Associated Builders & Contractors, Inc., 6601 Little River Turnpike, Suite 425, Alexandria, VA 22312—(703)-941-8281.

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RICHMOND, VA.

Howard H. Newlon, Jr. Succeeds Dillard

• Howard H. Newlon, Jr., of Charlottesville has been named to head the Virginia Highway and Transportation Research Council.

He succeeds Jack H. Dillard, who retired at the end of 1980 after 12 years as council director. The council is a cooperative venture of the Virginia Department of Highways and Transportation and the University of Virginia, and is located in Charlottesville.

Newlon, 49, is a native of Culpeper County and received his undergraduate and graduate degrees in civil engineering from the University of Virginia.

After work with the Tennessee Valley Authority and a U. S. Army tour, he joined the council staff in 1956. He spent 14 years in charge of Portland Cement concrete research and since 1972 has headed the council's history research. He was named assistant head of the council in 1968 and has been associate head since 1975.

He also has been a lecturer at the Schools of Engineering and Applied Science and of Architecture at the University.

Newlon has chaired a number of technical committees of the American Concrete Institute, American Society for Testing and Materials, and Transportation Research Board and is a member of several other professional and technical organizations.

He has been a member of two special overseas groups, one in Japan which reviewed research in the concrete industry and the other in Europe which looked at surveying research and development. He also is the author of many reports, technical articles, and publications.

Newlon is married to the former Barbara A. Westerman and has two daughters.

The council originates, collects, and disseminates information designed to improve and offer more scientific approaches to highway transportation, engineering, and research, and provides training in fundamentals of highway engineering and related areas.

Betty Page Joins Virginia Division of Industrial Development

• Betty Page of Richmond has joined the Virginia Division of Industrial Development as Manager of Public Relations. In her new post, Ms. Page will perform public relations support for industrial development activities in Virginia.

Ms. Page, 27, was formerly the Marketing Supervisor for the Virginia Office of Emergency and Energy Services. Under her direction, Virginia's energy conservation programs were marketed.

Prior to joining the Office of Emergency and Energy Services, Ms. Page was active in marketing and public relations for the Virginia Energy Office.

Ms. Page is a graduate of Goddard College, Plainfield, Vermont.

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AGE 40 & OVER

CANCER-RELATED CHECKUP EVERY YEAR

Should include the procedures listed below plus health counseling (such as tips on quitting cigarettes) and examinations for cancers of the thyroid, testes, prostate, mouth, ovaries, skin and lymph nodes. Some people are at higher risk for certain cancers and may need to have tests more frequently.

BREAST

- Exam by doctor every year
- Self-exam every month
- Breast X-ray every year after 50 (between ages 40-50, ask your doctor)

Higher risk for breast cancer: Personal or family history of breast cancer, never had children, first child after 30.

UTERUS

- Pelvic exam every year

Cervix

- Pap test—**after 2 initial negative tests 1 year apart—at least every 3 years**

Higher risk for cervical cancer: Early age at first intercourse, multiple sex partners.

Endometrium

- Endometrial tissue sample at menopause if at risk.

Higher risk for endometrial cancer: Infertility, obesity, failure of ovulation, abnormal uterine bleeding, estrogen therapy.

COLON & RECTUM

- Digital rectal exam every year
- Guaiac slide test every year after 50
- Procto exam—**after 2 initial negative tests 1 year apart**—every 3 to 5 years after 50

Higher risk for colorectal cancer: Personal or family history of colon or rectal cancer, personal or family history of polyps in the colon or rectum, ulcerative colitis.

AGE 20-40

CANCER-RELATED CHECKUP EVERY 3 YEARS

Should include the procedures listed below plus health counseling (such as tips on quitting cigarettes) and examinations for cancers of the thyroid, testes, prostate, mouth, ovaries, skin and lymph nodes. Some people are at higher risk for certain cancers and may need to have tests more frequently.

BREAST

- Exam by doctor every 3 years
- Self-exam every month
- One baseline breast X-ray between ages 35-40.

Higher risk for breast cancer: Personal or family history of breast cancer, never had children, first child after 30.

UTERUS

- Pelvic exam every 3 years

Cervix

- Pap test—**after 2 initial negative tests 1 year apart—at least every 3 years**, includes women under 20 if sexually active.

Higher risk for cervical cancer: Early age at first intercourse, multiple sex partners.

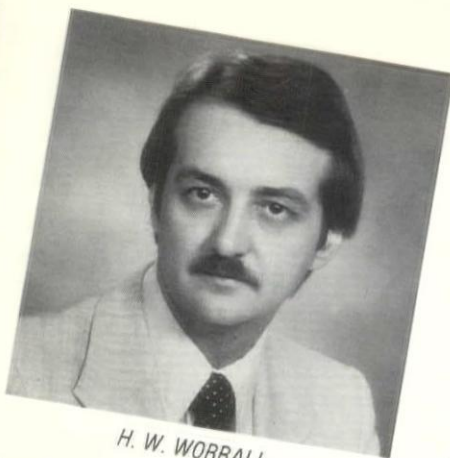
Remember, these guidelines are not rules and only apply to people without symptoms.

**SHARE THE COST
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This space contributed by the publisher as a public service.

VIRGINIA RECORD

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H. W. WORRALL

Fiscal Management Expert Named by State Highway Unit

• An Illinois consultant who has advised other transportation agencies on their fiscal management systems has been named to fill the newly created position of director of financial affairs for the Virginia Department of Highways and Transportation.

Harold W. Worrall, 34, was selected from among 130 candidates, to begin work April 1, according to the department's commissioner, Harold C. King.

He said Worrall would assume part of the duties now performed by several other officials in the department, and would direct budgeting, fiscal, and accounting operations. He also will have responsibility for analyses of economic data and preparation of financial projections.

Worrall, of Murrayville, Ill., was graduated from the University of Illinois with a Bachelor's degree in civil engineering in 1969. He earned a Master's degree in business administration from Sangamon State University at Springfield, Ill., three years later.

He has held planning, research, and data processing jobs with the Illinois Department of Transportation and, as a consultant, has assisted the Utah Department of Transportation, the Alabama Highway Department, and the Department in development of fiscal management systems.

For the past three years, Worrall has been vice president of the management consulting firm of R. J. Hansen Associates. He became acquainted with the Virginia Highway and Transportation Department during a Hansen study of the agency in 1979 and 1980, and King said that familiarity would assist Worrall in his new position.

Worrall is married and is the father of three children.

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Although few people talk about it, child abuse is almost as American as apple pie. In many cases, it's a family tradition in which helpless parents inflict beatings, neglect, sexual abuse, or emotional strain on their helpless children. Abused children grow up learning abuse as a way of life. When they become parents, they pass that learning on to their children. It is estimated that there are at least one million cases of child abuse in America each year. Over 2,000 of those children die. Most people believe that child abusers cannot be helped. But, fortunately, they can be helped. Get more information on how you can help destroy a family tradition.



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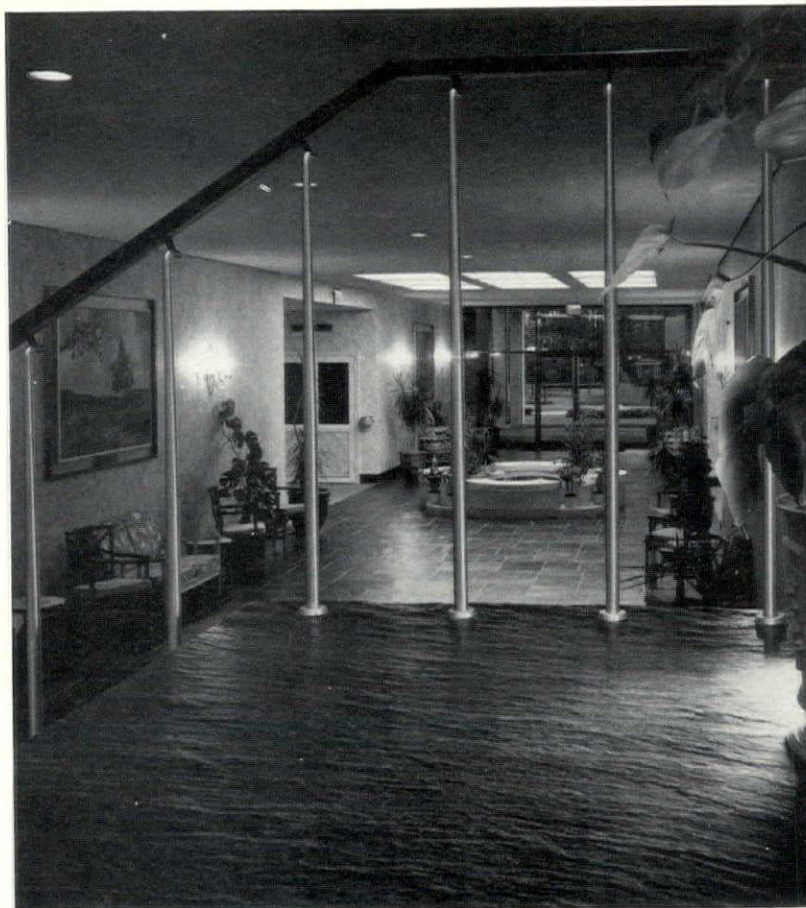
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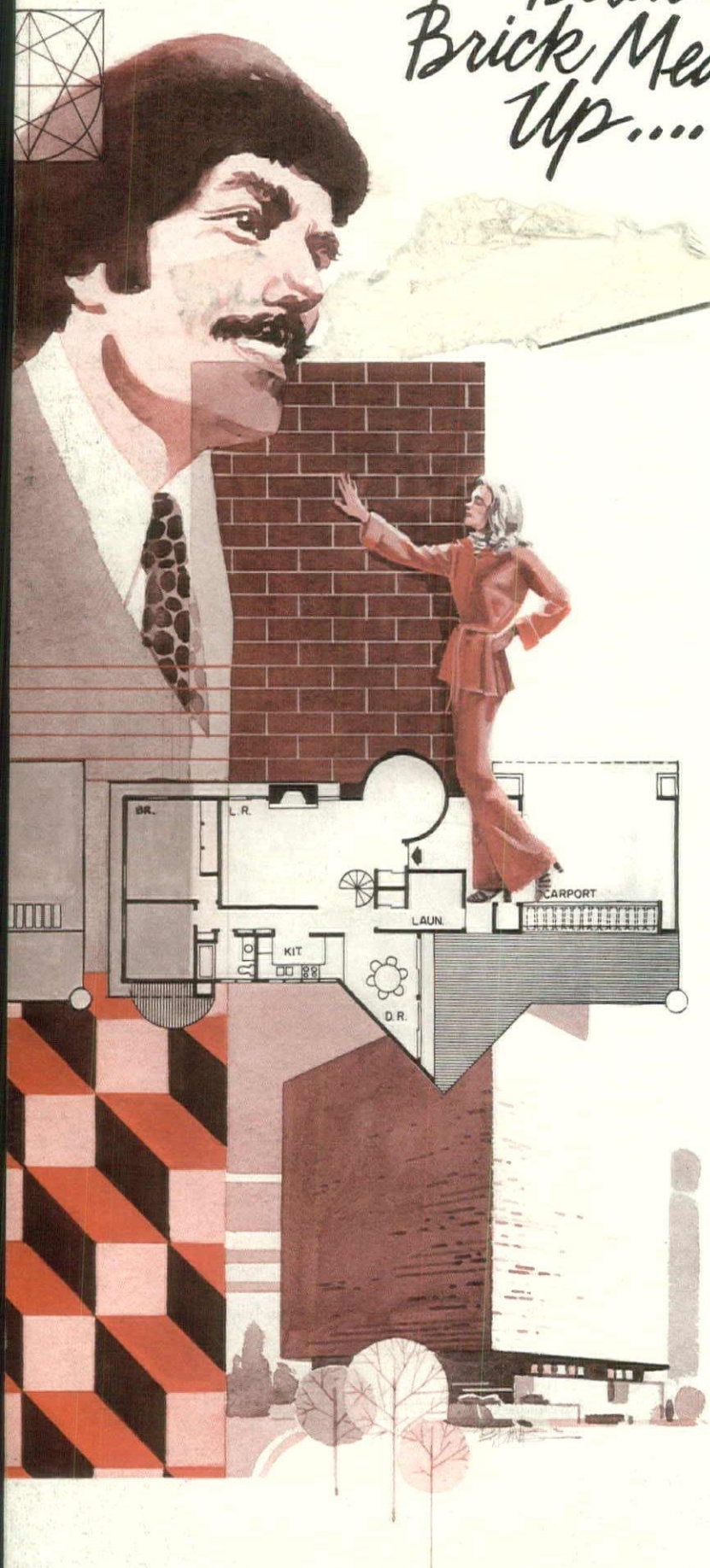
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