Financing Roundtable

Grants/Ind.

Adaptive reuse

INDIANA ARCHITECT

Indiana Architect
Second Quarter

Economics + finance

. . . IN SIZE

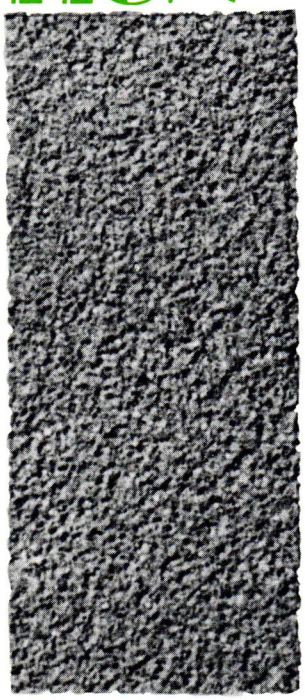
COLOR

TEXTURE

TRADITION

Belden Brick Measures Up....

TRADI-TION



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Indiana Architect is the official publication of the Indiana Society of Architects

Volume 5, No. 2 Second Quarter, 1982

Publisher Ted Rowland
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P.O. Box 69
Noblesville, IN 46060
317/773-1829

Indiana Architect (ISSN 0445-8605) is owned by the Indiana Society of Architects and is published quarterly each year with a special issue in June by Image Builders/Rowland Printing Co., Inc., 199 North Ninth Street, P.O. Box 69, Noblesville, Indiana 46060. Subscriptions are $12.50 per year. Second-Class Postage Paid at Noblesville, Indiana and additional mailing office. POSTMASTER: send address changes to P.O. Box 69, Noblesville, IN 46060.

Commentary

From the President

The architect as seen by himself? Hardly!

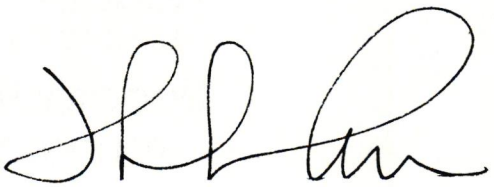
I suppose that each new architect making the transition from theory to practice may well feel, at some point, that he could save the world if only he could get started. However, reality prevails and maturing perception reveals that: first, architects simply are not effective as individual super-heroes, and second, that restraints on performance can easily be removed if you hold the right key.

The American Institute of Architects (AIA) has spent the past 125 years proving that professional architects working together on common goals and united in genuine fellowship can achieve "super" results. A current national AIA exhibit in Washington, D.C. illustrates how architecture has progressed from an apprenticeship trade at the level of master carpenter in 1857, to a diverse energy- and technology-conscious profession respected worldwide today.

Here in Indiana we see many of the reasons for this progression. In 1966, Indiana architects, acting as a unified force, were successful in helping to establish the first state-supported school of architecture in the state and, in 1969, through organized lobbying, gained an accredited degree requirement as part of our state registration law. High quality architectural education is the very basis of our profession and has become part and parcel of the practice of architecture in Indiana as a result of architects acting in concert. In 1971, the Indiana Society of Architects began distributing to architects throughout the state the AIA-developed standardized construction contract documents and, in 1977, the Society opened a downtown storefront bookstore which makes documents and educational materials available to the public as well as our member architects. Sincere concern for the public interest and consumer protection has led architects in Indiana to such high-quality practice that our state qualifies as one of the lowest-risk states for errors and omissions and professional liability insurance coverage.

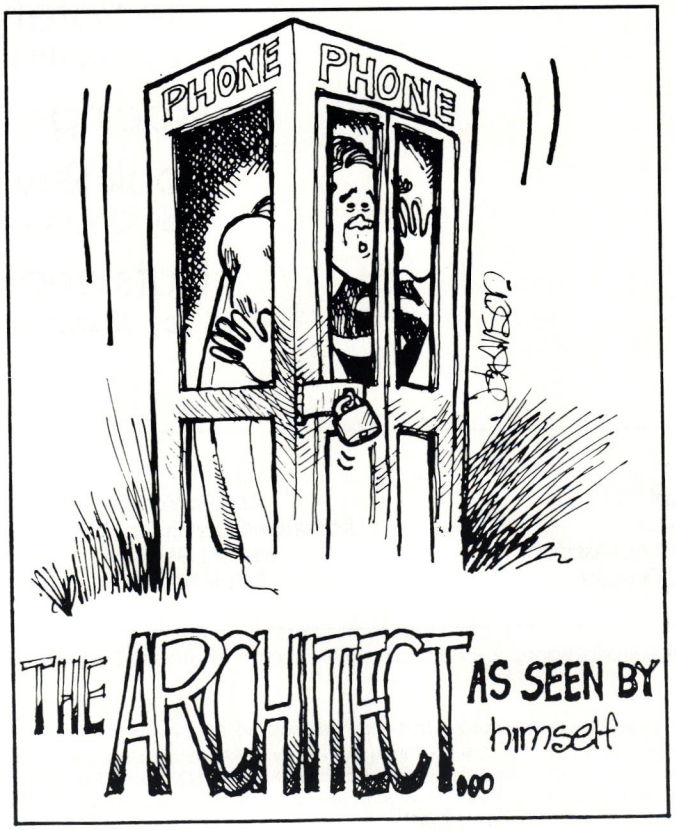
Naturally, there have been many individuals in the state who have put forth super-human effort to achieve these accomplishments. On numerous occasions constraints were encountered that needed to be overcome. However, the Society, in its endless quest to preserve "truth, justice and the American way," has found that the key to success lies in our collective ability to focus our diverse viewpoints and personal commitments on the very real issues affecting all of Indiana's citizens.

Indiana is fortunate, indeed, to have architects of many voices speaking as one – to unlock the doors and allow each of us the opportunity to fly.



John S. Allen, AIA
President

The 1982 president of the Indiana Society of Architects, AIA, Mr. Allen holds a bachelor of science degree in architecture from the University of Illinois and is a member of the staff of James Associates Architects & Engineers, Inc.



Letters

To the editor:

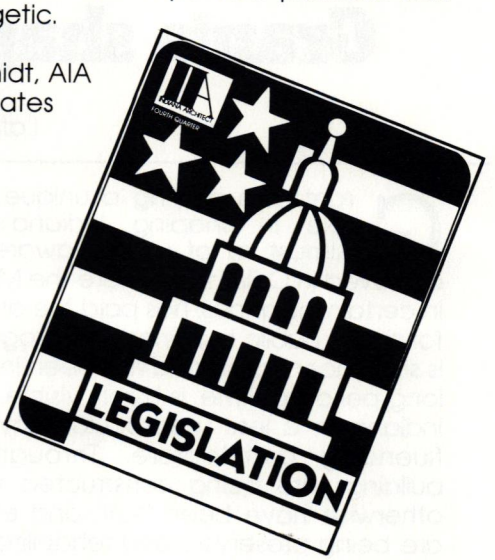
The Fourth Quarter (1981) INDIANA ARCHITECT is a break-through. I say this because the article "To Care and To Plan 1982" is, I believe, the first time the profession in Indiana has taken a leadership role in presenting concerns and proposals to the Legislation (sic) and the people. The last issue of Legislation (First Quarter, 1981) was a positive paper on legislation already in committee or on the floor. The eight topics covered (in the Fourth Quarter, 1981 issue) were brief in presentation, clearly stated, and definite in purpose. The Indiana Society of Architects, AIA, 1981 Legislative Committee is to be congratulated. This is must reading for all the architects in the state.

Dean Upshaw, AIA
James Associates – Lafayette, Inc.
& member, IA Editorial Advisory Board

To the publisher:

The recent legislative issue (Fourth Quarter, 1981) is deplorable! With its pale green cover on money the cover (sic) it even looks un-American. The lack of graphic impact of the ISA political positions can only be apologetic.

Wayne S. Schmidt, AIA
Schmidt Associates
Architects, Inc.



The Code Board

by James I. Clark
Acting Chief Elevator Inspector
Bureau of Elevator Safety

The Bureau of Elevator Safety was created to provide reasonable safety for life, limb, and property, and to protect the public's welfare.

The Bureau is directed by Albert E. Payne, Chief Elevator Inspector. He has five field inspectors and an office staff of three. The Bureau is a part of the Division of Labor of Indiana which is headed by Commissioner Howard E. Williams. Commissioner Williams is also a member of the Board of Elevator Safety of Indiana. Other members include: Kenneth H. Daniels, representing insurance companies; Earl Gibson, representing hotel, apartment, or residential building owners; William F. Poff, representing the elevator industry; and Stephen P. Hokanson, representing commercial building owners. These board members are appointed by the Governor.

This bureau's codes are adopted from the American National Standards Institute, Inc., (ANSI A17.1) by reference. There are codes to follow with all new installations, alterations of existing elevators, and our annual inspections of all existing installations. This department reviews all drawings and pertinent data for all new installations and alterations, prior to actual work, for approval, along with issuing installation permits.

The Elevator Safety Board has the power to consult with engineering authorities and organizations who are studying and developing safety codes. They also make, amend, repeal, or adopt, by reference, rules and regulations governing construction, maintenance, testing, and the inspection of both new and existing installations as provided by law. The Bureau compiles this information and has it printed in pamphlet form for distribution to elevator owners, manufacturers, architects, and general contractors.

The employees of the Bureau of Elevator Safety are very proud of our performance record and of the department itself. Our inspectors, including the Chief, have a total of more than 150 years working experience in the elevator industry and inspecting.

An employee of the Bureau of Elevator Safety since 1965, Mr. Clark studied arc welding at Mallory Tech, and has more than 16 years experience in elevator construction.

Grants shape Indiana architecture

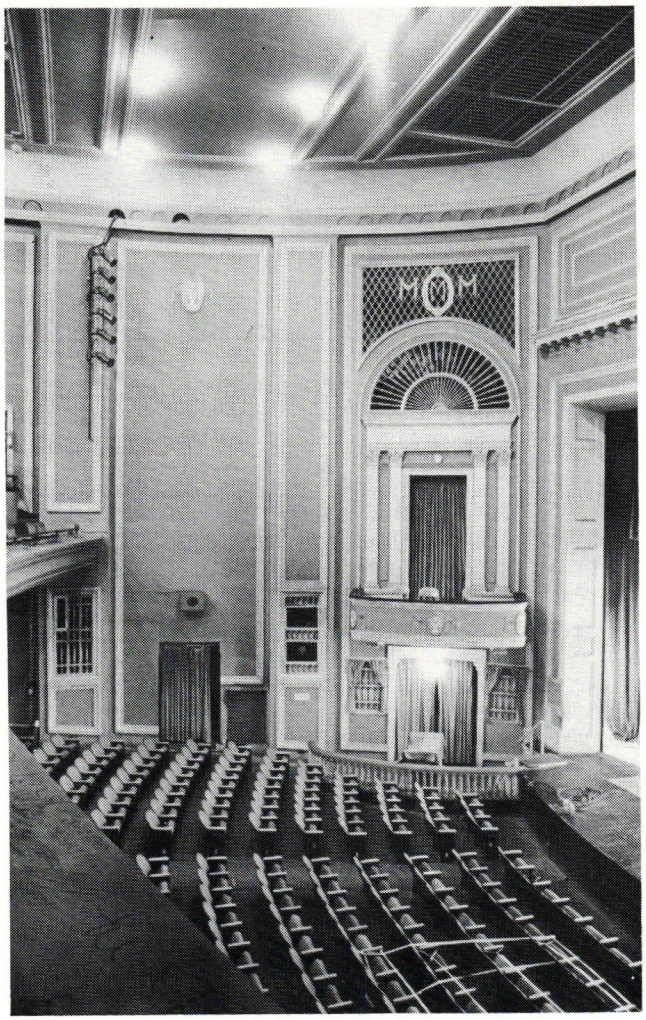
by Daniel J. Fogerty, RA, Director
Lafayette Redevelopment Commission

Grants are playing a unique and important role in shaping Indiana's architecture. Almost all of us are aware of the results achieved in Columbus where the Miller Foundation, in certain instances, has paid the architectural fees for major public buildings. This program, because it is so concentrated and has been in operation for a long period of time, is highly visible. But throughout Indiana, in a less spectacular way, grants are influencing architecture. Through grants new buildings are being constructed that would not otherwise have been built, and existing buildings are being preserved and rehabilitated that would otherwise have been lost. In addition, this work is being done in ways that could not have been done without some form of grants process.

Grants are a particular kind of transfer payment, usually made by foundations, corporations or governments, to individuals or groups without a repayment requirement. Those giving grants usually direct them toward projects that will produce some public good even if this public is a relatively small group of individuals. It is generally expected that a grant will not serve the financial advantage of a profit-seeking entity, although, in many cases, certain benefits to these entities can produce a significant public good as well. Therefore, grant recipients tend to be non-profit groups. Increasingly, grant recipients must match the grant with cash, or in-kind service, at some ratio. This produces a **leveraging** of grant funds.

Grants can shape architecture in a very literal way in their effects upon the physical characteristics of buildings (size, form, materials) but also they "shape," in a metaphorical sense of the word, through their influence upon the other components of the building process. Decisions of how to finance, where to locate, whether to build a new building or rehabilitate an old one, etc., can all be influenced by the existence of grants. Because of this wide range of influence, we must expand our definition of architecture to include other elements of the built environment as well as buildings, such as groups of buildings, parks and other planned open space and townscape.

To get more of a feel for these processes, let's look at four examples of how grants are shaping the architecture of Lafayette. I use these examples because I have first-hand knowledge of them, but many other examples can be found around Indiana.



The Mars Theatre awaits restoration.

Grants shape Indiana architecture

Main Street

Lafayette's Main Street, to the east of the central business district, is a linear collection of significant 19th-century buildings that have great potential for rehabilitation. However, because of a lack of focus, initiative, and existing perceptions, this opportunity was not being realized. The city, in cooperation with local lending institutions, developed the Upper Main Street Economic Development Program. Community Development Block Grant funds are targeted to this six-block historic, commercial area. These funds are used to reduce the interest rates on property improvement loans for owners who rehabilitate their buildings. The rehabilitation work must follow the rehabilitation **Guidelines** of the U.S. Department of the Interior. Effective interest rates for facade restorations are three percent, while the rates for interior works varies, being six points below local prime.

To date nine buildings have been rehabilitated under the program with over one-half million dollars private investment. This has been accomplished with a high leveraging ratio of eight private dollars to every public dollar. While seemingly not a grant, in effect, the Community Development funds to reduce interest rates amount to cash payments into the building projects without repayment requirements.

The Main Street Program provides a good example of the unique opportunities that can be provided by a grants process. Beyond the fact that new businesses and significant investments are being attracted to the area, there is a coordination between projects that would otherwise not have occurred. Although each building project is dealt with on an individual basis, the cash payment from the program coupled with the **Guidelines** allows an entire group of buildings to be rehabilitated in a coherent way, lending unity to this 19th-century townscape.

Building design, materials, and methods of construction are likewise affected. For instance, the original size, proportions and distribution of wall openings are retained. New construction is carefully developed. Materials are researched and carefully selected and, often, more-than-ordinary skill is required from workmen. Our experience has been that overall project costs are usually lower than they would have been with alternate approaches.

Mars Theatre

In 1978, the city received the Mars Theatre as a gift. Constructed in 1921, this neo-classical building has a 1,200-seat auditorium space that is acoustically excellent. Because it was built at the start of the motion-picture era, it also has projection facilities in addition to a conventional proscenium stage, resulting in a theatre with excellent potential for reuse as a multi-use performing arts center. However, the city lacked the funds to do the required rehabilitation. Therefore, it was necessary to look elsewhere.

As a first step the city nominated the Mars to the National Register of Historic Places and it was listed shortly thereafter. Because of this designation the city was eligible to receive a grant from the State Preservation Office of the Indiana Department of Natural Resources. These funds were from the U.S. Department of Interior and, although small in comparison to the total project cost, did assist in roof repairs which protected and maintained the architectural integrity of the structure. This, in turn, will play a crucial role in the effort to reuse the theatre.

Meanwhile, the city is studying the feasibility of making the substantial tax credit of the preservation provisions of the Economic Recovery Act of 1981 available to private-sector investors. This tax credit investment incentive, inherent in the Mars project because of its National Register listing, cannot be captured by the city, of course, because the city does not pay taxes. But, with a tax credit pass-through, investors may be induced to finance the project, thereby earning a reasonable profit and, at the same time, providing the community with a rehabilitated performing arts center at low cost to the city.

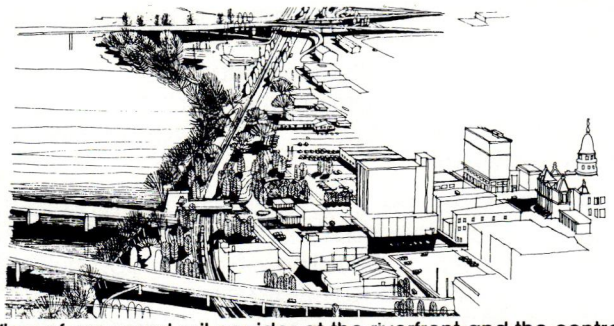
Although we might not consider the tax credit a grant in the conventional sense, it meets our definition of a transfer payment from government. It is also interesting to consider the role the small grant may have in helping to leverage a larger investment. And, in a very direct way, the theatre's architecture will be shaped by such things as metal and plaster restoration work that ordinarily would not have occurred.

Railroad Relocation

The railroad relocation project is the largest public works project in the city's history. Three through-town rail lines will be relocated into a jointly-operated corridor providing complete grade separation at all street crossings. The project was developed to the point of gaining federal interest in the project. Final engineering work on the selected alternative is nearing completion under direction of its project staff.

The railroad relocation's most apparent effects, of course, will be increased safety and efficiency of urban rail operations and the open-street network. But many other project features will be at work to shape Lafayette's architecture. For instance, the project's environmental impact review process identified for the first time seven buildings along the

Grants shape Indiana architecture



View of proposed rail corridor at the riverfront and the central business district.

corridor as eligible for the National Register of Historic Places. Construction of the corridor itself will introduce significant amounts of plant material into a rather barren part of the urban center, and a major plaza is planned connecting the central business district to the riverfront. In addition, the relocation will make large areas of abandoned railroad rights-of-way available for new infill or park development, producing a significant upgrading effect on adjacent neighborhood areas.

Urban Forestry

Lafayette has a small urban forestry program that will have a significant long-term effect upon the appearance, comfort, and energy consumption of the community. This program is the result of a series of grants from the State of Indiana.

An initial grant from the Department of Natural Resources allowed the city to conduct a comprehensive urban forestry study. The grant required a 50/50 match which was provided by Redevelopment Commission staff time. Grant funds were used to purchase consultation and survey work. The study recommended that there was a need to direct efforts into three areas: **tree planting, public education,** and **maintenance** of the existing forest cover. These recommendations formed the basis for other projects which also received assistance from the state.

A street tree planting demonstration project was developed. For this project trees were purchased with grant funds; the residents of a target neighborhood planted and cared for the trees. The residents' work is valued at nearly twice the cost of the plant materials, thereby providing a handsome leveraging of grant funds. This planting project was used by the state as a model for planting projects in other Indiana cities and towns, and formed the basis for subsequent local funding of other cooperative street tree planting projects in Lafayette. To date more than 600 trees have been planted under these projects.

Public education was addressed, in part, through a series of newsletters published with the assistance of another grant. In addition to practical advice on tree care, the newsletter articles provided information on such things as the well established practice of street tree planting in 19th-century Lafayette (long fallen dormant but responsible for extensive areas of existing forest cover) and the important effects on urban temperatures (and energy demand) of the city's forest cover.

Another grant was used to conduct several training sessions for Street Department crews in safe climbing and tree-pruning techniques.

In 1981, the Indiana Forest and Woodland Owners Association gave the city a cash award for its urban forestry program. These funds were, in turn, used to purchase additional trees for the cooperative tree planting program.

While the urban forestry program does not shape architecture in a literal sense, it certainly enhances the setting for our buildings. Indeed, this "setting" is, itself, a civic artifact that, during various periods of urban development history, has received just as much design concern and attention as buildings. In addition, the series of urban forestry grants reveals the opportunities that can evolve by grants leveraging other grants and sources of funds resulting in effects beyond the potentials of the original grant.

Directly and indirectly, immediately and in the long term, grants can have an important effect upon the architecture and other components of our built environment. From one point of view this effect is really quite recent when we consider the 150 years or so over which the built environment in our part of the country has evolved. Therefore, the overall results of grants on architecture can be hard to fully see. My belief is that the long-term effects will be quite positive and even remarkably cost effective.

Certainly, the current status of grants is changing. Federal grants are being cut back severely and states will become much more important. Competition for foundation grants is fiercer than ever just when foundations have less to give. However, at the same time, many corporations are doubling the size of their contributions budgets.

A central issue in all of these changes is whether we want to allow room for margins, as farmers call them, at the edges of a much larger and routine market/economic/administrative field where innovation can flourish and unique opportunities can be identified and captured for the benefit of us all.

Daniel J. Fogerty, a registered architect, is a graduate of Ball State University. Before assuming the directorship of the Lafayette Redevelopment Commission, he worked for architectural firms in Indianapolis and in Grand Rapids, Michigan, and was a representative to the Working Subcommittee on Community Development Housing, U.S. Conference of Mayors, in Washington, D.C.

Adaptive reuse of surplus school space

by C. William Day, associate professor, School of Education,
Indiana University; and
Jeffrey A. Myers, AIA, The McGuire & Shook Corporation

The need for school systems to creatively and earnestly look for methods of using school buildings for purposes other than traditional instruction has become a real concern for school boards and superintendents across the country.

Many school officials ignored the clear signals given them by the 1970 census figures. Despite the fact that these figures clearly indicated enrollment declines would be dramatic in the 1970s and 1980s, school districts continued to expand.

Constant and statistically consistent declines in enrollment were finally taken seriously during the late 1970s when school officials recognized their school populations and subsequent needs for facilities were contracting rather than expanding. School boards and superintendents found themselves in a position of attempting to maintain programs in existence, not improving or expanding programs. Districts caught in a financial crisis are now more concerned about closing or using surplus school space than about opening new buildings or housing a new group of students.

School district retrenchment has been a painful experience for school officials and community members alike. All parties involved were slow to realize what was really happening and what, ultimately, would be the result.

Now that the lesson seems well learned and the procedures clear, the situation could well be in the first stages of change once again. More women were born in the baby boom of 1947 to 1957 than during any other period in our nation's history. These women are now 25 to 35 years old and at the prime child-bearing years. Even if, as expected, they produce fewer children per person than previous generations, the sheer numbers of women who fall into this category will generate a rise in school population by the mid-1980s. More children have been born every year since 1976 than in the year preceding. The first children of this increased birth rate would have entered our schools during the fall of 1981. By the 1984-1985 school year there may well be an additional 400,000 seats needed that were unnecessary during the 1982-1983 school year.

School boards, superintendents, and the public must realistically face two concurrent facts: present enrollment decline/surplus school space and contracting districts, and projections of a mid-1980s expansion of school-age population. These school officials are faced with the dilemma of establishing policies and procedures that will solve the immediate concern of district contraction and surplus space while planning for the possible expansion of their pupil population in the mid-1980s.

These seemingly contradictory problems will demand imaginative, new, and often parallel or concurrent solutions. A unified program that will meet the immediate concern, but allow for viable short- or long-term alternatives for the future, must be adopted to deal with current facility surplus and future facility shortage.

The options available to a local school district faced with declining enrollment include reducing staff and cutting programs, raising local taxes, consolidating facilities, operating in debt, or contracting facilities. Facility contraction can take the form of complete closure and building sale, "mothballing," leasing, partial closure, joint occupancy, or usage by a district for other educational programs.

Facility contraction seems the least problematical and the most compatible with the projections of future expansion.

Within the realm of facility contraction, several options are more consistent than others when attempting to meet the second goal: possible future

expansion and methods of dealing effectively with it.

The sale of a school building is a drastic measure and is the least desirable alternative assuming building age and neighborhood complexion do not make it educationally inefficient or undesirable. There may be times when a building just is no longer suitable for educational purposes but would be quite suitable for other purposes.

Where reuse has been tried, the results have been dramatic. In Lockport, Illinois, a three-story, 33,000-square-foot high school, built in 1897, is being used by city, township and park district in a model joint partnership venture. A California high school, built in 1911, has been turned into a hotel, dining and entertainment complex, featuring several restaurants, 30 retail shops, a 640-seat theater, and an art gallery. In Ithaca, New York, a 66-year-old junior high school has become an office, apartment and shopping complex. A Lynchburg, Virginia, high school was converted to apartments for senior citizens and middle-income families. The school's gymnasium was retained for recreational use. Hospital officials in Des Plaines, Illinois, have leased an elementary school for use by a combination day-care and senior citizen program. The possibilities for reuse are limited only by the imagination.

Adaptive reuse has become popular because it offers positive benefits in both economic and social terms. Depending upon the state of repair in which a building is found, costs of recycling the space and bringing it up to modern codes are often considerably below those of comparable new construction. Based on the high cost of borrowing money and the steeply increasing price of building materials, the National Trust for Historic Preservation estimates that rehabilitation is 30 to 40 percent less expensive than new construction, and that projects can be completed in a third less time. The Trust also maintains the rehab is labor-intensive, with more money going into jobs than construction materials.

The economic argument for rehabilitation or conversion is, indeed, a strong one. The engineering, technology, and craftsmanship of many older buildings offer distinctive features that are often not found in contemporary structures. The seniority of old buildings in the community and their recognition factor can be important economic assets. It is indisputable that older buildings develop character and that their ambience or historical associations can be enormous community resources.

The outright sale of a building and surrounding grounds eliminates the possible reactivation of the facility for future use. "Mothballing" or partial closure of a school facility, while it does ensure its availability for future use, may not be cost effective for several reasons. Empty buildings or spaces within buildings are ideal targets for, and invite, vandalism and decay begins rapidly. Minimal, yet substantial when projected over several years, utility services (heat and light) must be maintained if the building or building spaces are to remain mechanically and structurally sound. Finally, the public, which reacts violently to school closure within its neighborhood, may well react with suspicion and cynicism to board attempts to close the building if "mothballing" is perceived as board indecision in relation to the building's worth, now or in the future.

There are positive and more easily justifiable alternatives available to solve the facility-contraction or surplus-space problem within a school district. As declining enrollment makes more space and staff available, consideration should be given to enriching and expanding present school programs, or offering programs and services not available prior to the excess available space.

Leasing or renting an entire building can be a very viable choice when selecting a method of eliminating surplus school space, but often raises some community and legal questions that must be answered before lease or rental agreements are made. The school community, since the building is being closed just as in a sale or "mothballing" approach, may well react, especially if it is their community-neighborhood school being considered for rental or lease, with a hostility equal to that of the sale program. The community surrounding the proposed rental facility will also, and justly so, be concerned about the parties being considered as renters, the limitations of space utilization and function they must adhere to, and the duration of the lease/rental agreement. The school officials must

be prepared to answer these and other questions raised by the community. Many states and some municipalities have laws regulating rental and lease agreements concerning public buildings. Renting to service agencies – public or private – such as Y.M.C.A., mental health, family counseling, day-care or health-care centers, or agencies of municipal or county government will not meet the social or legal restrictions met when private businesses are considered. Zoning and code – electrical, mechanical, and fire – requirements must be researched and met by the renting school district (renovation and remodeling costs may be assignable to the occupant through the lease agreement). The per-square-foot rents charged should be established and procedurally consistent. A rental program might well be established and based upon 1) the nature of the program housed within the facility and 2) the fixed costs applied by user type. Finally, the lease agreement must be written to protect the community and school district while ensuring the building's availability in the future.

A concept entitled "space sharing" or "joint occupancy," if at all workable within the specific circumstances of a local district's space situation, appears to offer the most positive and supportable use of surplus school facilities. A school district considering a joint occupancy program must address five major concerns: 1) determining what constitutes surplus space, 2) assigning administrative staff to oversee joint occupancy, 3) ranking types of tenants according to their "desirability" to the school system, 4) setting up a fee structure for renters, and 5) writing a lease that clearly describes the responsibility of both landlord and tenant.

The most significant application of the joint-occupancy concept appears to be the advent of the community school which serves not only pupils but also all people within the community. Such community schools offer a broad range of public services such as day-care, senior citizen programs, health care, welfare, and cultural services. These services are provided by leasing portions of a building in use by the school district, ideally away from the educational areas and preferably with separate entrances. The community school concept allows the school district to meet the public demand for increased services, gain public involvement and support, while effectively using available space and generating some revenue.

Joint occupancy may take another form on the opposite end from public service agencies and that is joint occupancy with business or private enterprise. The rental or lease of facility space to a private business is the most cost-effective use of surplus space since it would offer the justification of higher rental/lease agreements than with public service agencies. This end of the conceptual spectrum faces the stiffest resistance from teachers, parents, school boards, superintendents, and businesses alike.

The school board must recognize the responsibility it accepts when offering a school space to non-school users; simply by association, the board at least appears to be lending legitimacy to the occupants. State and local legal requirements and limitations considered, there are numerous examples where private enterprise has successfully co-existed with an educational program within the same building.

Joint occupancy is a concept that goes beyond responding to the immediate need to find alternative uses for surplus school facilities. It provides effective use of facility space and revenue is returned to the school system for use of that space. Perhaps more importantly the school facility is available and its programs expandable if needed in the future.

In the final analysis, the problem of declining enrollment is unique to each school system, and each factor in the local situation should be weighed accordingly. School planners should always retain an imaginative lookout for unforeseen possibilities, such as change in individual and social patterns and outlooks that surprise future school leaders just as changing family patterns surprised the growth oriented planners of the early 197Os.

C. William Day has served nationally as an educational planning consultant for numerous school corporations; Jeffrey A. Myers has been a project director for many renovation and adaptive reuse projects throughout central Indiana.

Update: IA construction financing roundtable

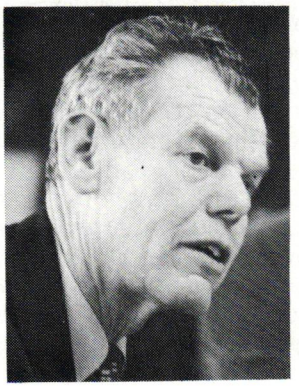
Inflation rates, interest rates, the **New Federalism, unemployment, GNP, national economic growth** – these are more than words and phrases which attract our attention when we glimpse them in newspaper headlines. They rivet our attention. Because of the unpredictability of our economic condition, they have become preoccupations.

Since economics and the financing of construction are as timely as they were in late 1981, **Indiana Architect** has repeated its roundtable on these subjects. The majority of the participants in this "update roundtable" did not participate in the roundtable published in the Third Quarter, 1981 issue. And we have added some major Indiana architectural clients who were asked to discuss their projects and their projections for the future. The discussion excerpted here took place on February 16, 1982.

Participating were: **Charles Akers**, AIA, president, Akers & Associates Architects, (Crawfordsville); **Dr. Eugene Brady**, Department of Business Economics, School of Business, Indiana University (Bloomington); *** John Carter**, economist and managing director, Research Associates (Indianapolis) and a faculty member at Ball State University (Muncie); **Mark S. Davis**, special assistant to Mayor Hudnut for economic development (Indianapolis); **Frederick Ford**, executive vice president and treasurer, Purdue University (West Lafayette); **Robert C. Marshall**, vice president, Lincoln National Bank (Fort Wayne); *** Richard L. Moake**, AIA, principal, Moake, Sheldon, Kratzat & Associates (Fort Wayne); *** Lynn H. Molzan**, FAIA, vice president, Woollen Associates, Inc. (Indianapolis) and **Indiana Architect** editorial advisory board chairman; **David Ridderheim**, administrator, Parkview Memorial Hospital (Fort Wayne); **John Whitaker**, policy analyst, Business and Financing Division, Indiana Department of Commerce (Indianapolis); and **Robert Wright**, vice president, Real Estate/Construction Loan Division, Merchants National Bank (Indianapolis).

* 1981 construction financing roundtable participants

IA: Mr. Carter, at the last roundtable you made some predictions. Please update those for us.



CARTER: Well, just postpone all I said one year and I think we're in place. The spread in interest rates at the present time is my basic argument. I think the trend is still downward.

IA: In your opinion, Mr. Brady, what effect will the New Federalism and the projected federal deficits have upon the economy?

BRADY: I think it's fairly clear that the deficits are going to keep interest rates relatively high for the coming two or three years and, of course, that keeps mortgage rates high which is going to make a severe impact on the housing market. The three major problems with the housing market are tight money, tight money and tight money.

As far as interest rates are concerned, the rate of inflation ought to, over the long pull, bear some resemblance to the long-term rate of interest. I would expect that interest rates are going to stay high. If we talk about 6 percent inflation we're talking about 10 or 11 percent long-term interest rates. That's quite a bit lower than the current rate but still high.

AKERS: It looks right now like we're either going to have a deficit of $100 billion or they're going to postpone the tax cut. Which of these would have the most positive effect on interest rates?

BRADY: It's kind of difficult to say. I think either one would have more or less the same effect.

Update: IA construction financing roundtable

AKERS: You're saying it doesn't matter what this Congress does about the size of the deficit in terms of interest rates?

BRADY: The major cause of the deficit is the recession, If we didn't have a trillion dollar debt, we'd be running a balanced budget.

CARTER: If we didn't have a $100 million interest payment we wouldn't have any deficit either.

BRADY: That's right.

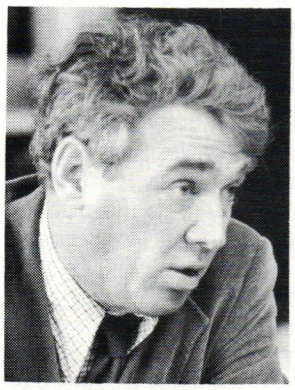
CARTER: Another point is that there is a very sizable transition of wealth that is going to take place and that's going to make this budget deficit figure look rather small in terms of the funds available for financing. We've taken off the rules with respect to the ceilings on savings. We're going to give the consumer a chance now to save, to look at saving as a virtue and not as a sin.

IA: What about savings programs such as money markets and IRAs?

DAVIS: Why invest money market funds in real estate when you can buy a treasury bond and have no risk?

WRIGHT: With IRAs you're starting out with the individual $2,000 annual maximum. Over a long period of time, 10 to 20 years, that's going to be a lot of money. But, today, it's just a start.

IA: What are your predictions concerning national growth in 1982?



BRADY: I don't speak for the School of Business in this. I speak for myself, and I'm probably more pessimistic than most forecasters. I'm expecting growth to be about minus 3 percent in the entire year, fourth quarter to fourth quarter.

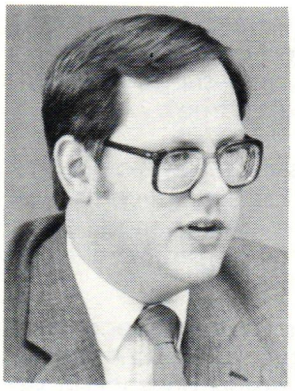
DAVIS: I disagree. I don't speak officially for the city but, personally, I expect the second half of the year to be up substantially. For the last half of the year I'm looking for something at what would be an annual rate of 6 percent. Overall, for the year, it would probably be anywhere from 2.5 percent to 3.5 percent.

BRADY: I agree with those numbers except they're a year early.

MOAKE: I guess I'm wondering how all this is going to affect the construction industry. It seems the cost of borrowing money to build projects puts so much pressure on the initial investment cost that the owner is more willing to cut out many things from the project to reduce the long-term debt.

DAVIS: To me, the best thing an architect can do is not talk about what can be cut out of the budget but help the owner by coming up with some creative financing.

MOLZAN: You aren't saying that architects need to go out and find creative financing. You're saying that's what architects ought to say to their clients, aren't you?



DAVIS: Yes. I think architects have to move in the general direction of taking a more active role in the financing and overall structuring of the project, particularly if they want to retain creative control.

AKERS: I don't agree. I don't think any architect has the expertise to tell you how to find money cheaper. What an architect can do, with some imagination, is get you a little more building for the same dollar.

MOAKE: I think architects must get more involved in the financing aspects of projects. As an architect I wouldn't feel comfortable or confident arranging a finance package on a multimillion dollar project. However, we've assisted clients in putting together a package of information about a project that they, in turn, use to talk to various lenders. A very well-thought-out and professional package can save points in interest when the owner is shopping for the best kinds of financing.

AKERS: I agree with that.

IA: Mr. Wright, have you worked directly with architects in financing projects?

Update: IA construction financing roundtable

WRIGHT: Primarily in the rehabilitation projects around town; that's been a niche that's been needed in the Indianapolis area and architects have filled it.

FORD: I'm sure it makes some difference whether you're talking about a profit-oriented shopping center, a house for an individual, or a public works project. I'd find it very unusual if an architect could help us with our financing.

MOLZAN: I'd like to get some idea about college and university work. There must be a great pent-up demand for construction on state-supported campuses throughout Indiana. Is that true?

FORD: No, because curiously, the legislature has been more generous in the last several years than previously. We've come through a period where there's been an awful lot of construction that's been authorized.

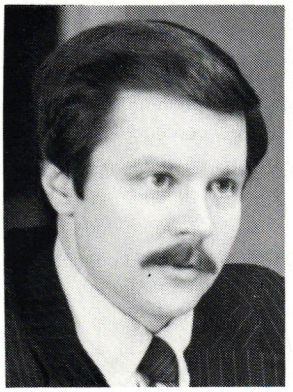
As I look to the future, I rather suspect, because of declining college-age population, we'll see a lessening of college and university construction. We may see more emphasis on renovation, taking care of the buildings that we already have and, probably, going back and doing some major renovation in some of those very old buildings.

MOLZAN: Will the emphasis be on regional campuses rather than home campus work?

FORD: Well, no. I think most of the regional campuses have gone through their growth phase and have reached a point now where their facilities are pretty much adequate. I'm speaking from Purdue's standpoint.

There's another factor which is coming from this New Federalism. We don't know what impact that reduced financial aid is going to have on enrollments. One of the possibilities is that a reduced number of students would go away to residential colleges. More of them would stay home where it's much less expensive. Since most of the regional campuses are located in large, metropolitan areas, they'd be the main beneficiaries of that. It will remain to be seen exactly how that works itself out.

As far as projects are concerned, we're using short-term, tax-exempt, commercial paper financing. If you add Purdue and Indiana, Ball State and Indiana State, you'd probably exceed $130 million to $140 million in short-term financing that's just waiting for the market to change; or maybe we're simply starting a new trend in financing depending upon what happens with the market. I'm worried that people aren't going to be willing to put their money out for long term. There have been a lot of people burned in the bond market and it's going to take a while for those scars to heal.



MARSHALL: I concur with you. There's been a lot of investors, institutional or individual, that have been burned. What used to be a short-term scenario for investing is now considered very long term. Short term may be less than a year.

The other factor we're seeing on the interest rate side is that we've got a customer in there now, namely the federal government, who is uncontrollable. I think everyone was planning on a deficit of what Reagan originally predicted in 1981. At the end of the year they announced that it would be 2 or 2.5 times that. There's no way you can prepare for that type of response overnight. It throws money markets and money rates and stock markets and everything else into a quandary.

The indications that we've seen in the first quarter show that the borrowing the federal government has done pushed the cost of funds up so the prime rate jumped to 16.5 percent. They're anticipating another large borrowing before the end of March, 1982, and little borrowings, hopefully, during the second quarter because of tax monies coming in. Nonetheless, it's going to impact short-term rates. When your lending institutions offer money market CDs to counteract the treasury bills, and those CDs are in the 14.5 to 15 percent environment, it raises the cost of funds and keeps it up there for a while. All that leads us to believe that short-term rates are going to stay up there, at least in the short run, because the inventory cost is up.

AKERS: What kind of risk are you taking because you're tied into the short terms?

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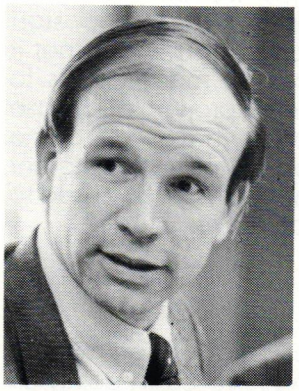
FORD: As I see it there's no risk except that our market, theoretically, could go away, but that seems inconceivable. There's one other risk and that is that 14 percent long-term rates could become a bargain at some time in the future, and we would wish we'd sold them at 14 percent. On the other hand, if we're just short-term financing at 7 percent, and the short-term rates don't go up to 14 percent, we'll have saved all this money, and we'll never be sorry. The other advantage to the short-term arrangement is that every 30 to 60 days you have the option of changing it. If the market would ever reverse itself, and you could sell long-term bonds at an effective interest rate that's less than you're getting in the short-term market, you can switch.

MARSHALL: What is the criteria to qualify for this type of 30-day commercial paper rollover financing tactic? The reason I ask is that 14 percent is what we're hearing from institutional investors.

FORD: You have to qualify in terms of being the legal authority to issue bonds. Beyond that you simply have to have the credit that will allow the bank to market your short-term paper. We are selling a fee bond in which the board of trustees pledges to charge student fees sufficient to cover the debt service.

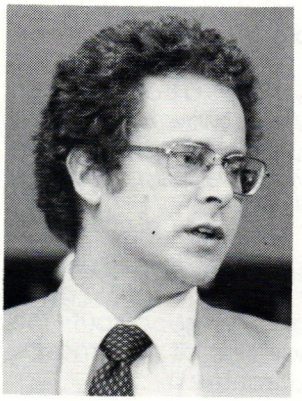


RIDDERHEIM: Your authority must be different. Most hospitals in Indiana would get at least a "triple B," and even with the feasibility studies that show our revenues, even with them having the mortgage, we don't qualify close to that 7 percent.

IA: Parkview Memorial Hospital is just beginning a project now, isn't it?

RIDDERHEIM: Yes, it will be a major operating room expansion. When I say major, I mean in the area of $10 million to $15 million. We'll be going the tax-exempt bond route for financing. That's the most common mode for hospitals today. Years ago hospitals depended on debt philanthropy drives. We still count on them, but they've been declining rapidly. Government grants have essentially dried up, so the tax-exempt route is the way we'll be going.

IA: What about tax-supported construction throughout the state? What are the predictions for 1982?



WHITAKER: Being from Commerce I emphasize the Community Development Block Grants. The Department of Administration would concentrate on most of the state public works projects. At Commerce our purpose is producing business and industry for the state. Through President Reagan's program we are getting Development Block Grant monies which go to non-entitlement cities, those with populations of less than 50,000 people. In 1982, it looks like we'll get around $21 million.

We foresee breaking that money into four different categories: 1) the Indiana Investment Incentive program, 2) community infrastructure programs, 3) industrial infrastructure programs, and 4) weatherization programs.

The Investment Incentive program involves loans or grants made by the state to a community. The community, in turn, would loan money to an industry so they could build their project at a much lower interest rate than possible with normal construction financing. In turn, the industry would pay back that loan to the community, and the community would revolve it into general programs, whether it be sidewalks, streets, or other public works projects of their own.

The second program is what most communities have used Community Development Block Grants for in the past, that being sidewalks, housing, and those types of projects.

Industrial infrastructure projects might be sewer, highway, or water hookups to new industries.

Weatherization programs would be basically worked out of community services agencies.

Update: IA construction financing roundtable

How the money will be split between these four areas hasn't been determined. We foresee that the majority of it would be used for industrial development and business development.

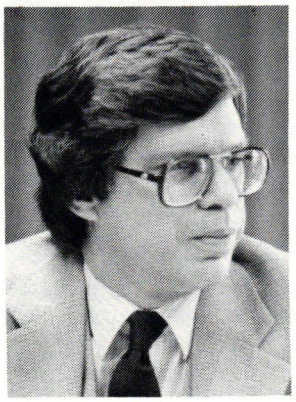
WRIGHT: This $21 million is seed money, or is it money to fund the total project?

WHITAKER: It's really a state UDAG (Urban Development Action Grant) program. I know Mark's worked very closely with the federal UDAG.

DAVIS: In effect, all we do is give them a little bit of money at below-market rates; they borrow the rest at market rates. The average interest rate is slightly below market rates. That's what UDAGs really do, make the money a little more affordable overall.

WHITAKER: And, additionally, there's a bonding bill in the legislature now which would allow the Department of Commerce, through a citizen-member board, to issue industrial revenue bonds, as well as guaranteeing a portion of the IRBs.

DAVIS: I think architects ought to be looking at the fact that the state can now do that. If you've got a project that seems reasonably good but the market perception of it is that it's a bit risky, maybe you can get the state to guarantee it.



MOLZAN: There's a bill in Congress to eliminate IRBs for certain types of investments. Is that a real threat to Indianapolis?

DAVIS: I think it would be devastating to all our small-and medium-sized businesses if we lose IRBs.

IA: What about the immediate future, 1982 through 1983, of construction in Indianapolis?

DAVIS: We're on the tail end of building a quarter of a billion dollar advanced waste treatment plant, one of the largest, if not the largest, public works project in the state's history. Because we have no other large public works project like that coming on, I look forward to the public sector contributing a lot less in the next year or two toward construction activity.

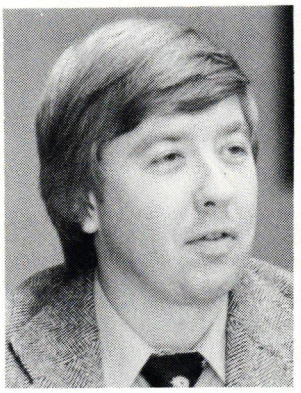
The Reagan people are substantially cutting funds for the traditional kinds of city projects. We're not going to repave as many miles of streets. We're certainly not going to do as many housing rehabilitation programs as we have been doing.

I'll give you two things that could change my prediction, though. One would be if we decide to build a resource-recovery plant, some sort of a "burn the trash to generate energy" thing. The other is if White River Park actually gets some substantial funding from either the private or the public sector. I think, though, both those are probably a couple years down the road.

I've a couple of suggestions for architects. I think any architect would be well served to go out and buy a $40 financial calculator.

MOAKE: You can get those from your banker.

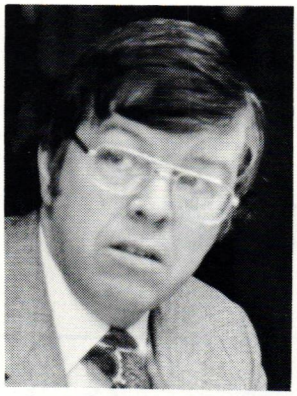
DAVIS: Another comment would be that I see a dramatic restructuring of the economy away from manufacturing and toward the service sector. I think, as architects, you've got to start looking for smaller clients and smaller projects because that's where the bulk of the economic activity is.



MOAKE: That's right and, as far as I can tell, that's opposed to the tradition of an architect always looking for bigger and bigger projects. I think we have to redefine the services we offer clients. I think we have to start looking at the fact that it costs so many dollars to build a project, and those dollars have to come from more and different sources than they used to in order to make any project viable.

MOLZAN: There seems to be a lot of optimism on the part of architects, though. I've been doing an informal poll of architects around the state, and they're saying that it's really a buyer's market. We've got a little $200,000 project down in North Vernon, and I think there were something like 25 general contractors bidding on it.

Update: IA construction financing roundtable



AKERS: I'd like to add to that. We bid out a project around $300,000 up in a suburb of Chicago, and we had 21 bidders. Even when we advised them of the number of bidders none of them wanted to back out. Most of them said, "It's very simple. We either bid this job or we're going to sit and twiddle our thumbs." I don't know if the industry is still going to be here a year from now if things don't pick up, because I don't see how you can have 25 to 30 companies bidding a job that small. And some of those were large firms. I mean, they probably would have turned up their noses at a project that size a year ago.

MOLZAN: Well, possibly it's a good sign that most of the architects I talked to seem to see their workload picking up, particularly in the institutional area. They see a lot more activity in spring, and then a lot of bidding and construction work in mid- to late-summer. Now, whether they're going to get any money to build any of these projects is another thing.

Points and Pencil Points

by LeRoy Troyer, AIA
LeRoy Troyer and Associates

Is new always better and more economical? In today's economic situation, owners and architects are finding new, creative ways to meet the shelter needs of society through adaptive reuse of older buildings. For some owners and architects, it is a surprising and new discovery; a real challenge to take older buildings with unique design qualities and character and adapt them for modern-day uses. The current tight economy and high interest rates make the adaptive reuse of older buildings more and more attractive to owners.

The real key is to find appropriate adaptive reuse of our older buildings and facilities. The saving and reuse of older buildings must continue to meet the functional needs of society. **We cannot afford to save older buildings just for the sake of saving them** and then let them deteriorate and become an economic and visual drain on society.

As our young nation opened up, most of Indiana's early development centered around transportation systems much as it does today. New Harmony, Madison, and Vincennes were all started along natural water routes. During the early part of Indiana's statehood, Fort Wayne, Lafayette, Metamora, and many other towns in the state grew during the short-lived construction of water shipping canals. Towns such as Hammond, Valparaiso, Warsaw, Nappanee, Kendallville, Elkhart, and many others grew along the railroad transportation system. Many of these towns, throughout the Midwest, were approximately 15 to 25 miles apart along the railroad, which allowed appropriate distance for farmers to take their products by wagon to the railroad centers.

The modern highway system has had a major impact on the growth of our communities. A good example is Merrillville, located at the crossroads of Interstate 65 and U.S. 30. Much of the retail shopping has been located in large shopping centers with the best locations at the cross sections of major arterial transportation hubs. A good example is the U.S. 31 bypass (formerly) around the east side of Kokomo, Indiana. This has greatly affected modern architecture and will no doubt continue to do so as long as the individual automobile remains the major transportation system for society.

The Wallace Dodge House ca. 1885, Mishawaka office of LeRoy Troyer and Associates.

We are paying now, and will pay more in the future, for the cancerous growth of the urban sprawl. We have lost, and are continuing to lose, a lot of valuable top soil (farmland) by spreading networks of highways, streets, and utility systems, thus committing ourselves and future generations to pay heavy taxes to maintain such systems. If we look around in our own communities and find a proper building, with a willing seller, an adaptive reuse of that building could be a solution.

Points and Pencil Points

Our firm has completed extensive energy audits of new and older buildings, and, in most cases, found that buildings built prior to 1940, had less energy loss per square foot than the newer and modern buildings. Part of this is due to the fact that older buildings relied more on natural ventilation systems while the newer buildings used modern mechanical equipment for light and ventilation of the building. By carefully analyzing the older buildings, often adding insulation which, at times, can be a minor expense, and maybe installing newer and tighter windows, energy loss can be greatly reduced. It is very difficult, and sometimes economically impossible, to design new buildings with the same design and quality of materials and craftsmanship that is inherent in some of the unique, older buildings.

LeRoy Troyer and Associates has located its offices in older buildings that have been adaptively reused. After careful studies of its office requirements, our firm had the opportunity to purchase a 4,500-square-foot, three-story, Queen Anne, red brick house, built circa 1889, near downtown Mishawaka. We were able to move into a renovated building with all new wiring, heating, plumbing, sprinkling system, and restore and save the unique architectural features of the original building, such as the wood monumental stair, fireplaces, parquet flooring, and unique interior trim work. This adaptive reuse and restoration saved the firm 25 to 30 percent of the cost for an all-new facility. The employees have the added benefit of being close to downtown and directly across the street from the Mishawaka Y.M.C.A. where all of them enjoy the benefits of recreational facilities during their noon hour.

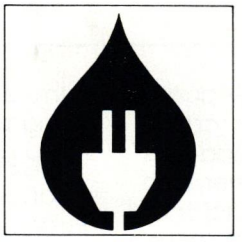
The Carneigie Library, 1901, Goshen office of LeRoy Troyer and Associates.

In 1981, LeRoy Troyer and Associates opened its second office (in Goshen) in Indiana's first Carnegie Library, built in 1901, and vacated in 1968, when a new public library was built. Our firm was able to acquire this facility for its expansion program, and the building has been handsomely restored with a minimum amount of renovation. Again, the building has many unique and outstanding architectural features which would not have been affordable or possible if we'd built an all-new facility. It provides adequate space for growth and expansion for many years at a much lower cost than an all-new building. The 6,000-square-foot building, with the acquisition cost and all the restoration expenses, saved more than 60 percent over the cost of an all-new facility. It was the only way this project was feasible for the firm.

Our firm has been the architect for the restoration of Governor Hendrick's Quarters in Corydon (the former state capitol), preparation of a conservation and preservation plan for Columbus, Indiana, the adaptive reuse and restoration of the former Studebaker Mansion into the Tippecanoe Restaurant, the Bonneyville Mill in Bristol, as well as numerous other restoration projects.

The key to a successful restoration and adaptive reuse of an existing building is to do careful planning and research: understand the construction methods that were used on the building; do real detective work in analyzing the soundness of the structure, mechanical and electrical systems, roof condition, and the building location. Very thorough and comprehensive cost analysis needs to be done and accurate bids received (similar to building a new facility), in order to control the ultimate costs. Generally, it will require just as much or more work for the functional analysis, feasibility study, and the renovation of an existing building as it takes for the design and construction of an all-new facility. Economic benefits to the owner for restoring old buildings can include tax incentives as well as project cost savings and maintaining the quality of existing neighborhoods through improvement of the facilities. As we design and build facilities for our changing society, we need to reuse our existing buildings and facilities as well as build new buildings and facilities. We must consider the total value of yesterday's buildings for reuse by the generations of tomorrow.

Mr. Troyer is a 1971 graduate of Notre Dame's School of Architecture. The Bonneyville Mill restoration in Bristol, which Mr. Troyer mentions in his article, won an Indiana Society of Architects, AIA, citation in 1974. The firm's Mishawaka Office is located in a building which is listed on the National Register of Historic Places.



Energy

by Lieutenant Governor John M. Mutz
Director Indiana Department of Commerce

Conservation, energy production boost, goals of state programs

We've known for several years that the days of cheap energy are over. Also, the "easy" ways to save energy have probably all been discovered. That means the best way to save energy and keep energy costs as low as possible is to explore some ovelooked methods of conservation. That's the message behind two state energy conservation programs begun by the Energy Policy Division of the Indiana Department of Commerce.

Many of you may deal with local governments. Frequently, the over-worked local government purchasing officer is rushed into deciding which of a bewildering array of bids is best, and often, the deciding factor is the original cost. The energy division is asking the purchasing agent to take a second look at the bids before him and rate the energy efficiency of various alternatives. For example, the low bid might be attractive, but the life cycle of products offered at a higher bid might be longer ... and it might be enough longer to justify the purchase on the basis of lower cost per year or more efficient fuel use. All this information is summarized in a workbook for local government purchasing agents.

A workbook is also used to help owners and operators of religious buildings learn how to conserve energy. The Energy Policy Division offers seminars each year to acquaint users of religious buildings with simple energy-saving tips. Ministers, building custodians, and board members from over 400 churches attended these seminars last year. Most religious groups don't have the money for major building renovations, so seminar instructors emphasize low-cost, no-cost ways to save fuel.

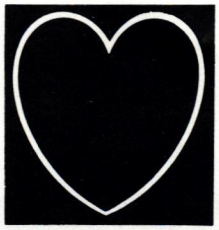
Indiana legislators are also concerned with the cost of fuel for Hoosiers. A bill to promote the use of Indiana coal by industry has been proposed to the legislature this year. The bill is part of Phase II of the Orr/Mutz Economic Development Package.

Senate Bill 431 provides a tax credit for converting from oil or natural gas to coal. One of the benefits of this bill is that it would conserve oil and natural gas. It would also offer the user a stable supply of energy because the coal used in Indiana would be mined here. The resulting increase in coal production would boost the number of jobs for Indiana's coal miners. Although the state would sacrifice revenue because of the initial tax credit, it would gain money in the long run from increased tax revenues associated with the coal production.

Last year legislators passed a bill that now provides homeowners with property tax deductions if hydroelectric power devices or geothermal heating or cooling devices are installed. The bill went into effect January 1 of this year. The bill applies to owners of real property or a mobile home who have installed such devices. A hydroelectric device is one that uses the power of moving water to provide mechanical energy of electricity. A geothermal device is one that uses the natural heat from the earth to provide hot water, produce electricity, or generate heating or cooling. The amount of the deductions for installing these devices is equal to the assessed value of the real property or mobile home with the device, minus the assessed value of the real property or mobile home without the device.

All these programs, put together, can be important ways of saving energy and conserving energy dollars. The Orr/Mutz administration feels energy innovations are important to the future of our state.

For more information, contact the Energy Policy Division of the Indiana Department of Commerce, 440 North Meridian Street, Indianapolis, IN 46024, or call 317/232-8940.



Life Safety

by Courtney E. Robinson II, AIA
Chief Architect, City of Indianapolis

It is not difficult to show that minimum safety standards of the construction industry increase the initial cost of building components. Consider only a single "2 by," for instance. There is cost to determine the required structural sizing of framing members, to set standards for necessary dryness, to test typical samples, to inspect for physical minimums (knots, checks, warpage, splitting), to grade and show compliance with the wood industry's acceptable standards. These standards add to the cost of a "2 by" and each of the thousands of components installed in a building today – from bricks, blocks, concrete, steel, to bolts, nails, staples – require wide acceptance of required basic safety standards for size, shape, material, type, configuration, grades, etc. There are costs accrued through the American method of insuring standards compliance and verification. Standards are also established on end-use safety minimums as well as close compliance to manufacturing and industry standards. To continue the example: without such standards the "2 by's," when delivered, could be green, warped, over- or undersized, split to uselessness, misgraded for species and strength. Thus, an approved "2 by" can be judged as being expensive if used to fuel a woodstove, but is one of the least expensive members when properly installed within a structure. If all standards were to be abandoned, it would be nearly impossible to design, construct, bid estimate, build, insure, contract, price, mortgage, bond, certify, buy or sell, with any certainty. With uncertainty, the price of the final building would rise many, many times over any initial savings. Thus, in the end product (whether a home or a school) there are savings many times greater than the initial cost that such a safety system imposes on the public. I know of no knowledgeable person or group (outside the centralized, federal bureaucracy) who advocates the dismantling of our viable, national private-sector consensus system of safety controls on the manufacturing, sales, and proper use of our basic construction materials. The historical American system of standards, based on achieving the desired uniformity of safety requirements, works very well, and at **least market cost**.

Thus far, it has been my thesis that our system of safety standards does not increase the real cost of a building. On the contrary, our system permits standardization, reliability, and more effective design considerations, thus keeping the costs low and establishing whatever economics of scale that do exist in buildings today.

Then who is it that says safety standards add unnecessary cost to a structure? I believe only a few, who are either unknowledgeable or who have a vested interest in not observing the immediate and long-term benefits of the American consensus standards system. But the critics are to be listened to – a workable system must be a responsive system, answering not to individual desires but to the common needs of the greatest number of basic life safety requirements within practicality and scientific feasibility.

The basic safety standards established for construction normally work very well – some to greater and some to lesser benefit. One reason they work so well is that they are continually being modified to respond broadly to any new material, method, need, or danger. In addition, the administrative section of the standard permits it to respond specifically on a one-to-one basis by variance and hearing procedures.

But one area which may become even more safety- and cost-effective would be for the legislature to modify the enforcement procedures to permit certain contractors to establish a systemized process to make their own, routine safety reviews. Such a process which has been tried successfully in other areas is known as the "Bechtel Plan." More about this in my next column (Fourth Quarter, 1982).

A member of numerous international, national, regional and local organizations and committees on construction codes and standards, Mr. Robinson was, for ten years, Indiana's code director, state architect and public works director.

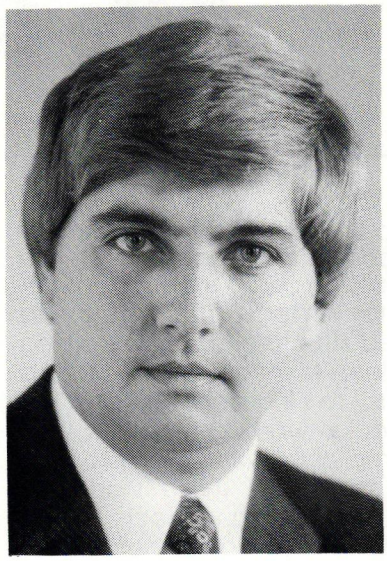
Tracings

Indianapolis ... The Indianapolis Historic Preservation Commission is seeking an Administrator for their staff of five persons. Applicants must have at least five years experience in administration. Preference will be given to those with a degree in architecture, architectural history, planning, or public administration. Knowledge and experience in preservation programs is desirable. The Indianapolis Historic Preservation Commission is an equal opportunity employer. To apply, contact City Personnel, Room 1541, City-County Building, Indianapolis, IN 46204, 317/236-5191.

Indianapolis ... The Indiana Chapter of the Associated Builders and Contractors (ABC) has recently announced its 1982 officers: G. Robert MacDougall, president, MacDougall & Pierce Construction, Inc., Carmel, is president; first vice president – J. Randy Meeks, Real Mechanical, Inc., Carmel; second vice president – James P. Garber, Construction, Inc., Fort Wayne; treasurer – Bruce Allman, Allman & Fitzgerald CPAs, Indianapolis; secretary – David H. Ratliff, Don-Lee, Inc., Indianapolis; immediate past president is Robert L. Turner, R.L. Turner Corp., Zionsville. McDougall, Meeks and Garber were also elected to represent Indiana on the national Board of Directors of Associated Builders and Contractors. ABC of Indiana is a construction trade association representing 16,000 merit shop contractors in Indiana and across the nation.

Muncie ... A proposal for saving energy in historic buildings by a Ball State University College of Architecture and Planning team has been selected as one of eight finalists in a competition sponsored by National Building Museum, Washington, DC. Led by Harry Eggnink, Ball State University professor, the team submitted a proposal for reducing energy consumption in the Boyce Block Building which was built in downtown Muncie by James Boyce in 1880.

Washington, DC ... The American Institute of Architects is celebrating its 125th Anniversary this year with the theme, "A Quest in Time." The Institute has grown from 13 architects in New York City in 1857, to more than 38,000 members in 294 state and local components.



Richard A. Ackley
President
Grunau Company, Inc.
– Midwest

Indianapolis ... Gary P. Grunau, president of GRUCON Corporation, has announced the formation of Grunau Company, Inc.-Midwest. Richard A. Ackley was named president of the company. Offices for the mechanical contractors and engineers are at 8731 Americana Boulevard, Indianapolis.

West Lafayette ... Purdue University's $4.3 million National Soil Erosion Laboratory was dedicated on January 15, 1982. The laboratory, designed by James Associates Architects & Engineers, Inc., Indianapolis, houses a rain lab which simulates rainfall and its effects on soils throughout the world. It will be used by soil scientists who are working to prevent serious erosion of the earth's surface. Purdue was selected as the site for the lab by the U.S. Department of Agriculture (USDA) due to its highly-regarded graduate program in soil sciences. The project was financed by the USDA. Project architect Thomas Allen, AIA, described the building as interstatial, with "floors" above the actual work areas housing all mechanical ductwork. This accessibility eases installation and repair, since workers are able to walk directly to fixtures via decks.

Washington, DC ... Architects from Indiana met with more than 500 presidents and other component representatives at the American Institute of Architects (AIA) Grassroots program for 1982, January 12-15. On the program, in addition to many senators and representatives and Bill Monroe, anchorman and executive producer of "Meet the Press," was Indianapolis mayor William H. Hudnut, III.

Pictured with Indianapolis mayor William H. Hudnut, III (center) are: (right to left) Richard L. Moake, AIA, president, Northern Chapter; Robert C. Book, AIA, vice president/president elect, Northern Chapter; Ray Ogle, AIA, vice president/president elect, Indianapolis Chapter; John H. Jelliffe, AIA, vice president/president elect, Indiana Society of Architects, AIA; Joseph J. McGuire, AIA, president, Indianapolis Chapter; Charles M. Sappenfield, FAIA, Ball State University; Scott C. Veazey, AIA, vice president/president elect, Central Southern Chapter; Ken Englund, executive director, Indiana Society of Architects, AIA. Not pictured: Charles R. Akers, AIA, president, Central Southern Chapter.

Events

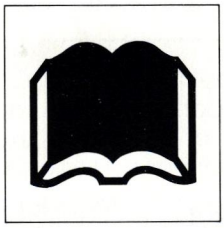
Cambridge, MA ... The MIT Laboratory of Architecture has announced nine short summer courses for 1982: July 6-9 – Low Energy Approaches to Commercial Building Design; July 12-15 – Passive Solar Design; July 12-16 – Realities of Historic Preservation; July 26-30 – Improving Professional Effectiveness; July 28-30 – Building and Craft: Reconciling Traditional Attitudes and Contemporary Construction Problems; August 2-3 – Client Relations; August 2-6 – Design for Housing in Developing Countries: Seminar; August 9-13 – Design for Housing in Developing Countries: Studio; August 16-20 – Designing in Islamic Cultures: Adaptive Reuse. For a catalogue and additional information, contact Ms. Sharon Trohon, MIT Laboratory of Architecture and Planning, RM. 4-209, Cambridge, MA 02139, 617/253-1350.

Evansville ... The ISA/KSA Regional Convention will be held October 29 and 30, 1982, at the Executive Inn. Information concerning speakers and registration will be mailed to members in the coming months.

Honolulu, HI ... The American Institute of Architects will hold its annual convention on June 6-10, 1982. The convention will take its theme, "A Quest in Time," from the 125th anniversary theme used throughout 1982 by the AIA. Speakers will include B. Gentry Lee, co-producer of Carl Sagan's "Cosmos" public television series; Dr. Joseph MacInnis, Canadian underwater explorer and author; and Princeton physics professor and futurist Dr. Gerard K. O'Neill.

Muncie ... Exhibitions planned by the Ball State University College of Architecture and Planning for this spring include: May 10-14 – Thesis Projects/Review Juries; May 17-28 – Thesis Exhibit. For further information, call Linda Lee Nelson, director of CAP Guest Lecture and Exhibit Series, 317/285-4481.

Thorndale, PA ... The Paper Plane, national newsletter for document production management, has announced the dates of a new series of seminars on computer-aided drafting and design (CADD) developed for architects and engineers. The one-day seminar entitled "Computer Graphics in Architecture and Engineering" is scheduled for: Chicago on April 21, Los Angeles on April 23, Washington on May 17, Houston on May 18, and Denver on May 20. For a brochure and more information, contact George Borkovich, editor, 3400 Edge Lane, Thorndale, PA 19372, 215/384-7362.



Book Review

by Christopher Peragine
Simmons and Associates, Architects

Building to Last
by Herb Greene, 128 pages
published by Architectural
Book Publishing Co., Inc.
$26.95

Many architects graduated with the belief that architecture can be about ideas; that design can make a difference, and that architecture can transcend utilitarian constraints. We understand that its quantitative aspects and the intricacies of construction, while necessary, would just be grafted to larger concerns.

Today, much of the environment is molded by the "rectilinear motion of events." Much of what society perceives as important is mandated by tensionless exigencies of the moment. Casual consumerism has usurped architecture, the ordering which sought to rectify the "poetics of modern experience." Today, at its best, most architecture proposes "imaginative" applique, "effects," affected diversity, and fanciful visions without rigor.

In **Building to Last, Architecture as an Ongoing Art**, Herb Greene proposes "an armature way of designing and building as Architecture's reaction to unsatisfying consumption." An "armature" can be a framework or a building with a disposition that unifies collective endeavors. It is a system which accommodates and encourages a succession of adaptations. An armature can be unmasked structure or can be sheathed and modified in a variety of ways. Rather than being a finished image, an armature is both a place and a process where the "encrustations of the many are added to strongly metaphoric images initiated by the architect." An armature is an ordering device, a stable core which elicits unified diversity.

In an armature way of building, things do not merely "get done." Passive indulgence is replaced with active involvement. Mr. Greene proposes building in a way which allows all to participate. He is "interested in establishing psychological bonds between clients and their buildings." This is an architecture which is enlivened by an accretion of modifications and additions. Armatures assure "continuity in time" and "non-authoritarian architecture by eschewing replacement and change and encouraging permanence and evolution." Mr. Greene wants craft and work to supplant time and labor. He wants building to encourage democratic action and the "historic process." He denounces industrialized building unless it is used as a "responsibly limited tool." Mr. Greene feels that abstract space is too often unintelligible and that it is the bastard offspring of "the mechanistic side of Modern Architecture." "Tangible, palpable space" is to be sought. Social malaise and the methods by which we build are intertwined. Adoption of a capable and adaptive sense of limitations reminds us that technologies are to be seen and used as developments within a continuum. This is building to last. The armature way of building is an answer to concerns of style. Its adaptive and unified diversity is the product of the collaborative efforts of many in which the "passage of daily lives" is given value through public participation in a way of building. It is fundamentally ecological and is an alternative to "memoryless modern construction."

This is a book about solutions rather than "obsessive self images," about "necessary action" rather than an "aesthetic vocabulary." Mr. Greene describes a building process in which the architect is "heroic" anonymously; an animator orchestrating collective endeavor which can reconcile "an imagined past with a corporeal present." An armature way of building is enabling.

Book Review

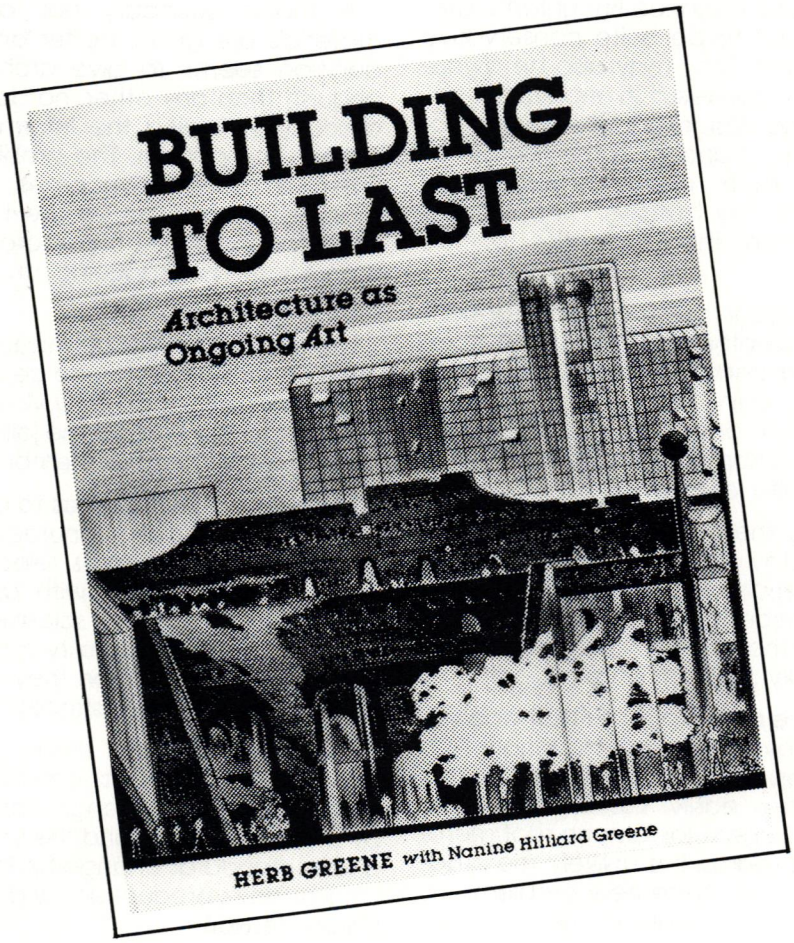
Mr. Greene laments "rational architecture's lack of surprises." He forwards the inspiring, if optimistic, notion that people want to be involved with building, that people want to work together creating patterns; that there exists an "enduring motive for expressing the past in connection with the present which seems necessary for civilization." And that, in building to last, "provision for this sort of empathy, undervalued and nearly eliminated by most modern architecture, is a primary determinate of form."

Complex technologies are often designed to defy change. Building to last, an armature way of building, synthesizes rather than dislocates. This inclusiveness occasions "productive unpredictability." The "articulation of differences, rather than the reinforcing of differences" is made coherent by the unifying imagery of the armature, a "matrix of cues" initiated by the architect.

At times, in **Building to Last**, the sympathy accorded small-scale endeavor and the emphasis on craft threaten to become sentimental and evasive. But Herb Greene's ultimate vision is well-grounded. It is a process of collage and pluralistic participation that celebrates permanence and change over time. In so doing, **Building to Last** reconstitutes for architecture the "role of the material object as a gateway to the spiritual." This is a process in which "given form and random form come together to make a new integrated form." These methods can qualify what society perceives as important. The "reference frames" provided by Greene's way of building remind us that order does not need to be absolute or simplistic, but can be simultaneously stable, permanent, and adaptable.

Mr. Peragine is a 1978 graduate of the Tulane University School of Architecture.

Building to Last is available at the Architectural Center Bookstore, 148 North Delaware, Indianapolis, IN 46204, 317/634-3871.



Nuts and Bolts

by Joseph J. McGuire, AIA
Lennox, Matthews, Simmons & Ford

Almost everyone enjoys looking at beautiful and innovative designs. There would be very little progress in architecture without them. But there are building managers and owners who rue the day they were saddled with a beautiful award-winning building that seemingly was "designed to leak."

The architect's dream client has a lot of money to spend and loves to take chances. But unfortunately, most clients turn out to be quite conservative and have tight budgets. They may also be aware that radical innovation can result in unpleasant surprises as well as striking design, and they are reluctant to take too many chances. At the top of the design criteria of such clients are: "1. Low maintenance" and "2. Dry building." These items can often compromise the aesthetics of the structure.

Certainly, a rectangular building with standard details is easiest to weatherproof. And the color selections for best maintenance-free materials are invariably limited. Also, easy cleaning requires gloss surfaces instead of flat, and most long-life lamps produce a strangely-colored light. The list of such restrictions can be quite lengthy.

To properly service these clients, the conscientious architect must stay abreast of the avalanche of new building materials being developed. This is time consuming but necessary. And it is very satisfying to discover a new material with magical properties that solves a sticky problem on a project.

Sometimes there are new problems that accompany the magic, however: the super insulations that produce toxic fumes, the super safety glazing material that scratches easily, the super sealant that attracts dirt, the super elastomeric roof membrane that has weak seams. It is unlikely the product literature will describe these new problems; so unless he likes unpleasant surprises, the architect must discover them himself before they are specified. This is best accomplished by locating and talking to the more daring users who were willing to try them first. When the problems are identified, proper countermeasures can be provided, such as protecting the super insulation with a layer of fireproof material, or by using the super sealant in a location where its attraction for dirt is acceptable.

A major quandary has always been which materials are good, better and best. This type of decision seems to give architects more mental anguish than any other, no doubt because of the difficulty in finding the information necessary for proper comparison. The problem is compounded when a material becomes popular and many manufacturers jump on the bandwagon. At present, for instance, there are approximately 125 manufacturers producing an elastomeric roofing membrane.

The first decision to be made is which material to use. Will a PVC membrane be adequate, or will the extra longevity of an E.P.D.M. membrane be worth the extra cost? And will the joint adhesive have the same longevity as the membrane?

The second decision has to do with the quality of the material. Which manufacturers should be approved and which ones rejected? This can be a traumatic experience with all the weeping and gnashing of teeth by salesmen for the rejected manufacturers. The quality materials can be identified though, and when they are, the contractor's selection should be restricted to them.

Even after making these earth-shaking "final" decisions, the architect can't afford to be complacent. Companies change hands or are absorbed by a conglomerate and the product formula or the quality standards change for the worse. Sometimes a company's product slowly deteriorates for no apparent reason.

Nuts and Bolts

Sealant selection is another problem area. No sealant can do it all properly. Most buildings have joints that should be sealed with at least three, and sometimes more, sealant types. Money should not be wasted by using one of the super sealants in interior joints with minimal or no movement. The economical acrylic latex-base sealant should be selected for these joints. This sealant will not take much movement, though.

Joints in traffic surfaces should receive nothing but urethane-base sealant, which is the only one tough enough to take this wear and tear. Some urethane-base formulations have excellent elongation and can be used successfully in other moving joints.

Silicone-base sealants should last longer than the other sealants, but because of their softness, they are sometimes susceptible to vandalism. Some silicone-base formulations also have excellent elongation, but their static attraction of airborne dirt should be evaluated.

There are a number of excellent sealants on the market, but there are others that are not so excellent. So materials investigation will be the never-ending chore for the architect.

The dream method of making each material evaluation is to find an experienced, inquisitive, smart, trustworthy, helpful and friendly (former boy scout?) installer or applicator who has installed and tested all the available types of the particular material involved, and who knows all the manufacturers and the quality of their products.

It's worth looking for him. A few dreams do come true.

A fellow and past president of the Construction Specifications Institute, an instructor in specification writing at IUPUI, and a member of the first Certification Committee for Construction Specifiers, Mr. McGuire is also active in leadership programs for the Boy Scouts of America! He is 1982 president of the Indianapolis Chapter of the AIA.

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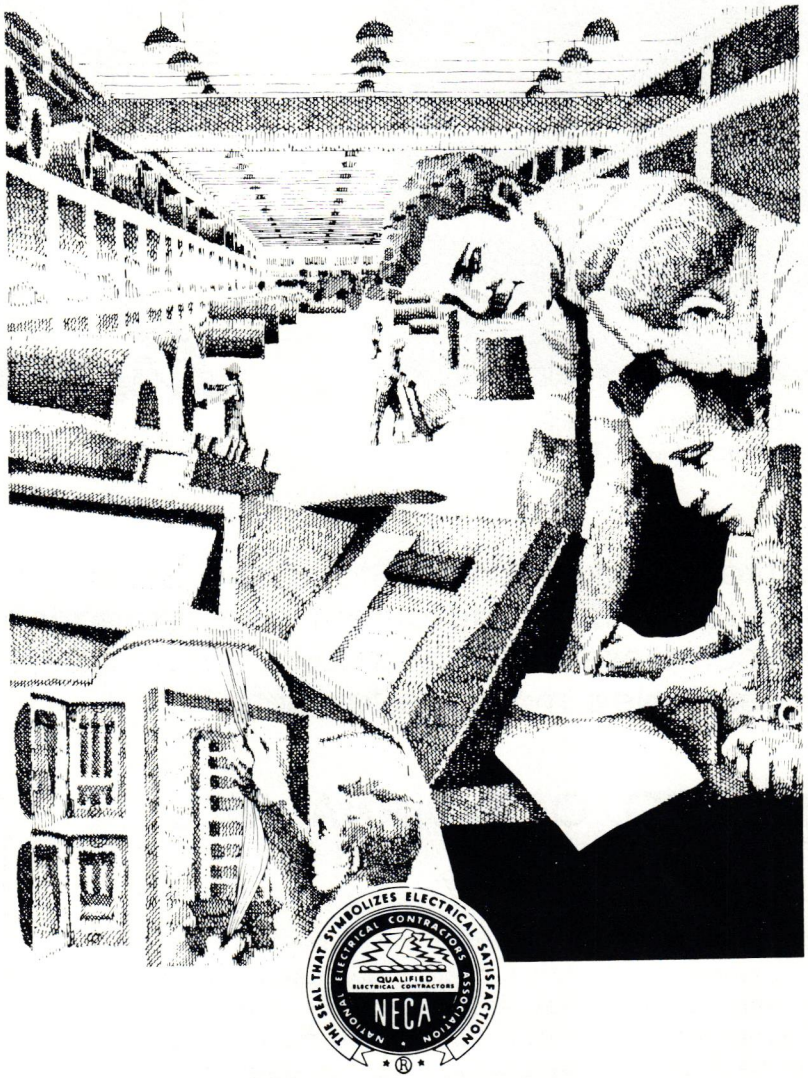

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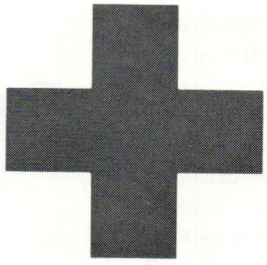

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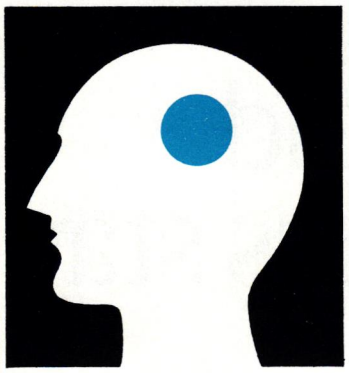

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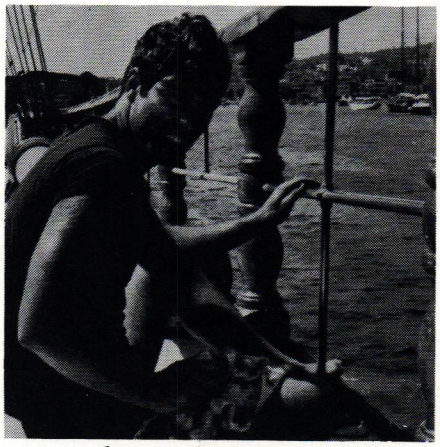

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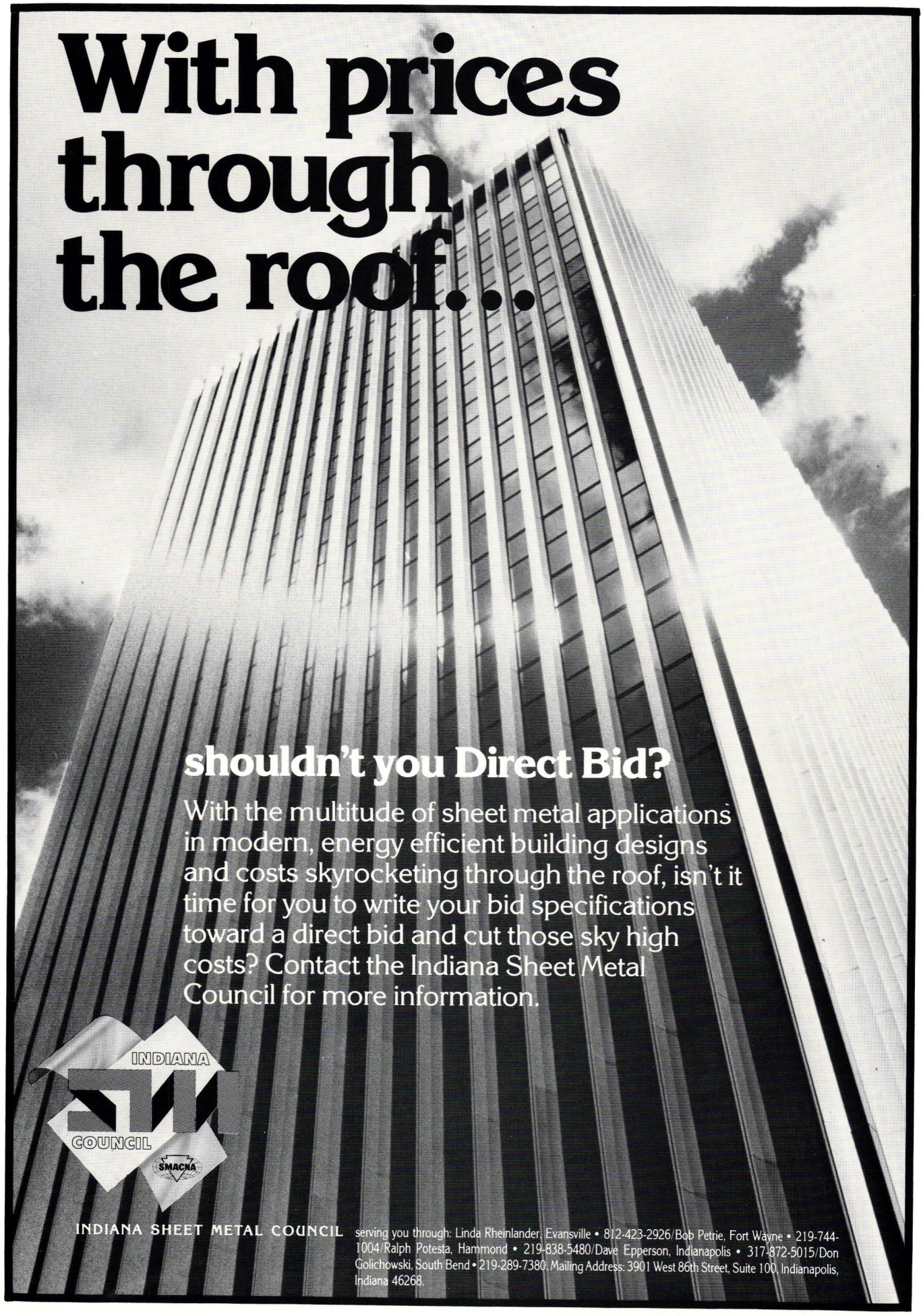
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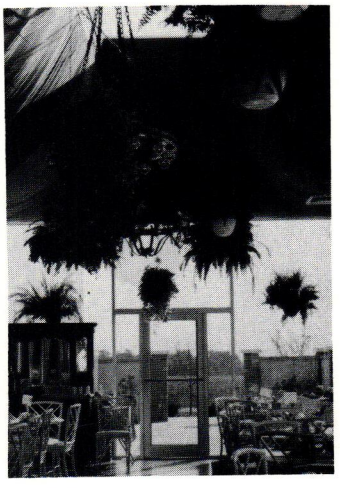

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