When an elevator can be stopped below the ceiling level it becomes an important design element—not just another space-taking facility. Because the Rotary Oildraulics are pushed from below, there is no overhead machinery—thus no penthouse to break the roofline profile.

No penthouse means more savings, besides greater freedom of design. All the weight of the elevator is supported by a powerful oil-hydraulic plunger. Lighter and less expensive sidewall construction is required. Power unit location can be planned to coordinate with other required mechanical equipment to save the expense of a special machine room and permit more effective use of available space.

These advantages, plus dependability of operation, combine to make the Rotary Oildraulic the truly modern elevator for modern buildings.

Full data on the Oildraulic, as on all Northwestern lines, is available immediately upon request; expert assistance is also yours for specifications and layouts on any type of project.
OUTSIDE: below zero to above ninety
INSIDE: complete comfort
New Inland Integrated Air Floor System provides complete control of indoor environment... at lower cost than conventional systems

The new Inland Integrated Air Floor System combines the functions of four time-tested components to provide simultaneous control of: (1) temperature of air and room surfaces, (2) relative humidity, (3) air motion, (4) bacteria content. What this means to employers and employees alike is clear: better working conditions, increased effectiveness, less absenteeism.

Because it is designed as part of the building, the Inland IAF System delivers all of its benefits at significant savings, both in first and operating costs. Furthermore, it offers the designer new freedom in the creation of healthful, efficient, comfortable interior spaces.

How is this possible? Three years of Inland research have combined (1) a Burgess-Manning radiant ceiling system, (2) a Kathabar chemical air conditioner, (3) a standard refrigeration plant and (4) Inland Hi-Bond Celluflor, into an integrated system. All of the circulated air can easily be carried in the cells of Inland Celluflor, with ample room left over for power and signal lines.

Space is too limited here to explain how the Inland IAF System works, but a sound-slide program has been prepared which tells the story quickly and meaningfully. If you would like your organization to see this program, please write the Milwaukee address listed below or call your local Inland office.

Inland Steel Products Company
Engineered Products Division

ALBANY, ATLANTA, BALTIMORE, BOSTON, BUFFALO, CHICAGO, CINCINNATI, CLEVELAND, COLUMBUS, DALLAS, DENVER, DETROIT, PESHOM, CALIF., HOUSTON, INDIANAPOLIS, INDIANAPOLIS, IND., LOS ANGELES, NEW ORLEANS, NEW YORK, OKLA., PHILADELPHIA, PITTSBURGH, SAN FRANCISCO, SEATTLE, ST. LOUIS, ST. PETERSBURG, TULSA.
This room has three window walls. Outside temperatures range from below zero to above ninety. Armstrong Ventilating Ceilings distribute all conditioned air. Every part of the room is comfortable.

H. J. ROUX Manager, Acoustical Products Research, Armstrong Research and Development Center

THIS ARMSTRONG VENTILATING CEILING INSTALLATION in Wisconsin has proved itself in conditions as severe as any test room could provide. During a complete heating and cooling cycle, the Ventilating Ceiling alone has distributed all the conditioned air. There is no extra ventilation and no supplementary heating. There are dual-pane window walls on three sides of the room, running a total length of sixty-four feet. Temperatures outside the glass vary from below zero in winter to above ninety in summer. The room projects some twenty feet out from the main building and is supported on columns; in all it has five exposed sides. It forms part of a supper club; the occupants' comfort is a highly important factor.

"MAXIMUM COMFORT"
The Armstrong Ventilating Ceiling system has been completely successful. Mr. John Reynolds, owner of the supper club, reports:

"After observing this Armstrong Ventilating Ceiling in operation—summer and winter—I can express my extreme pleasure in the ceiling and the job it's done in maintaining maximum comfort conditions. Whether the temperature outside is below zero or in the nineties, customers sitting right next to the windows tell you how comfortable they are. This is proof to me that I've got a good system."

On this job, conditioned supply air enters the plenum through a stub duct from the main building. Conditioned air fills the plenum and is forced down through the Ventilating Ceiling under relatively low pressure. By using Armstrong's Plenum Engineering Procedures, the engineers insured that this pressure is uniform throughout the plenum, making the air flow uniform through each Ventilating Tile.

PRE-PLANNED DISTRIBUTION
In order to supply more air to the window wall areas, where temperature extremes and the wide use of glass call for extra heating and cooling, three rows (3") of 100% Ventilating Tile were used along the perimeter of the ceiling adjacent to the glass. The rest of the room has 50% Ventilating Tile, except for the ceiling over the stairs and landing, which is all non-ventilating tile. Return-air grilles are placed in the stairwell which joins this upstairs cocktail lounge with the downstairs restaurant. The Ventilating and non-ventilating tile in the interior are arranged in a checkerboard layout; as seen in the lower photograph (opposite page) there's virtually no difference in appearance, since the ventilating perforations are carefully integrated into the regular surface pattern. This distribution of tile, calculated according to the Plenum Engineering Procedures, results in pre-planned air distribution throughout the room.

OPERATING CONDITIONS
Heating cycle Total cfm: 1,000
  cfm/sq. ft. of floor: perimeter — 2.50
  interior — 1.26
  cfm/sq. ft. of Ventilating Tile throughout room — 2.50
  Plenum pressure: .0115 inch water.

Cooling cycle Total cfm: 2,000
  cfm/sq. ft. of floor: perimeter — 5.00
  interior — 2.52
  cfm/sq. ft. of Ventilating Tile throughout room — 5.00
  Plenum pressure: .0325 inch water.

More information
For details of the Armstrong Plenum Engineering Procedures, which give all the factors and formulae needed to design Armstrong Ventilating Ceiling systems, contact your Armstrong Acoustical Contractor or Armstrong District Office. For information about Armstrong Ventilating Ceilings in general, write Armstrong, 4211 Wisconsin Avenue, Lancaster, Pa.

Johnnie Reynolds' Supper Club, Burlington, Wisconsin.
Mechanical Engineer: Anthony Balestrieri, Elkhorn, Wisc.
Acoustical Contractor: The DeGelleke Company, Milwaukee

Armstrong CEILINGS / acoustical fire-retardant ventilating
"Floating saucer" of folded concrete roofs 3 acres

Free of supporting columns, the roof of the new University of Illinois Assembly Hall will seem to "float" over the spectators. This is the world's largest concrete dome, 400 feet across and weighing 5,000 tons. It is borne entirely by a peripheral ring of prestressed concrete resting on 48 concrete buttresses.

There's an unobstructed view from every seat in the house for sports events. Seating arrangements and staging are readily adaptable for theatricals and concerts. For insulation and acoustical control, the underside of the roof will be lined with cement-wood fiber panels.

The use of concrete to effect such architectural and engineering achievements is seen more and more today. Everywhere architects are turning to versatile concrete to create designs of outstanding beauty and functionality.

PORTLAND CEMENT ASSOCIATION
A national organization to improve and extend the uses of concrete
In this issue you will find the first section of an article ORGANIZING A FIRM OF ARCHITECTS FOR GROWTH, PROFIT AND EFFICIENT PRACTICE by Mr. D’Orsey Hurst, reprinted through courtesy of charrette, official publication of the Pittsburgh Architectural Club, to be completed in the December issue of the Wisconsin Architect. Mr. Hurst, president of D’Orsey Hurst & Company, a New York professional consulting firm working frequently with architects, provides knowledgeable answers to vital questions such as “What are some good ways to get commissions? What are the key danger signals a firm must look for in its make-up? Why does a client choose YOU as his architect?”

What’s New is a first in our magazine this month. To eliminate any doubt, the picture of the Mitchell Park Conservatory project (Wis. Arch. Oct.) was taken between the first and second grouting operation. Therefore, the rough appearance of the concrete frames in the picture.
"To provide a bank of the future for a progressive city of 4,000 people, that would combine in its design the dignity that is inherent in the whole concept of banking with an atmosphere of friendly hospitality and informality that is so prevalent in a small city" — this was the problem of John W. Steinmann, AIA, of Steinmann Architects, Monticello, in designing the First National Bank of Stoughton.

He envisioned a design that would "provide an assurance to all of a bright future, without rejecting the excellence of the past." He wanted the building to be a symbol of stability and integrity. "An incentive to the people to seek better things, to work their own destiny and to encourage through it a sense of pride".

Careful planning was aimed toward a total facility that would be based on sound banking principles and excellent banking functionalism. "It was necessary that a bank of tomorrow reject inhibition in its design and make maximum use of modern technology and materials", according to Steinmann. The site that was selected deviated from the usual time
tested opinion that a bank must be on "main street". It was located one block away from the main business street, however, within view of the two other banking facilities of Stoughton.

Two residential properties provided a 132 foot square area, large enough to accommodate the bank and also to provide generous parking and auto banking.

The bank itself was designed as a round structure because, within a circle, traffic patterns and relation of function become more efficient. Stone was selected as the supporting material of the superstructure because of "its ageless, enduring soundness and natural beauty." Gold anodized aluminum was used for all exposed metal throughout the work. Large continuous glass areas in both outside and inside walls provided unrestricted views from all areas of the bank and tend to establish an invitation for customers to enter. Exterior stone work continues beyond glass areas into the interiors where it joins gracefully with walls of prefinished red oak paneling.

A great dome crowns the entire center area of the building. It is 36 feet in diameter, and at the time of its erection, was the largest self-supporting glass dome in the United States. Cantilevered steel beams support the dome, thus giving the illusion that the dome floats in space without visible support. Gold anodized ribs and rings support the outer glazing of 3/4 inch blue wire-reinforced Aklo glass and an inner liner of white polyester plastic.

The combination of glass and plastic provides a uniform distribution of cool, natural light without glare. A portion of the air conditioning is delivered directly into the dome to insure uniform summer temperature control throughout the building.

The main level floor area is just under 4,600 square feet, the lower area 3,000 square feet. The total cost of the structure without land, architectural fees, drive-in window, night-depository and teller counters is $165,000.00. Heating and air conditioning rooms are on the lower level of the bank. Facilities on the lower level also include a large meeting room, storage vault, custodian storage, recreation lounge with package kitchen and public toilets. The lower level is accessible from outside and through inside stairs.
FITZHUGH SCOTT, AIA:
Recipient of Bell Telephone System Merit Award

The Wisconsin Telephone Company central office building in Waupun, designed by Fitzhugh Scott, AIA, Architect, Milwaukee, was one of 39 winners of national architectural merit awards given by the Bell Telephone System in the 1960/61 competition "for good building design at reasonable cost."

Judges in the competition were three former presidents of the AIA, Leon Chatelain, Jr., Douglas Orr and John N. Richards. Good looks, excellence of solution to each individual problem, appropriateness to its surroundings, identification and "average or below cost" were deciding factors in the judging. "We have found that good building design costs no more than poor design and many of our best looking buildings are the lower cost ones," said Howard E. Phillips, A.T.&T. building engineer.

The prize-winning Waupun office building, a one-story, basementless structure opened in February, 1961, is composed of two main functioning areas: the central office equipment room and the business office space. A fifteen foot clear ceiling height was required for the larger central office equipment room; the business office itself required space for only six employees.

"Thus we were confronted with the problem of composing a windowless high large mass, and low smaller mass, which would have glass areas on a level corner lot in an old residential neighborhood," said Thomas M. Slater, assoc. member of the Wis. Chapter of the American Institute of Architects, in charge of the Waupun project.

The solution was to minimize the large mass by wrapping the low mass around it on the street sides, with office space at front. The low mass was emphasized by exposing its steel frame and glazing the full height within the frame.

An almost perfect level table of hard limestone, found about three feet below grade, builds the foundation of the building. This might explain why the State Prison — only two blocks to the west of the Telephone Central office building — was erected there, Mr. Slater assumes the limestone discourages "do-it-yourself" tunneling projects.

The exposed steel frames were prefabricated in sections up to thirty feet long and boom-erected on the foundation walls. All exterior steel is finished with an epoxy coating. Brick used within the white steel frame is of a blackish-rust blend. Windows are solar gray thermopane and spandrels above and below the windows are tempered solar gray glass with black painted insulation back-up, which matches the thermopane as closely as possible. The glass is retained by 3/4" square aluminum stops screwed to steel frame faces at outsides and 1" x 3" black anodized aluminum horizontal and vertical mullions within the frame opening. The steel frame of the low mass supports steel joists and a metal deck roof.

The high mass is reinforced concrete flat slab construction clad in a smooth gray brick. The central office equipment room roof slab is supported by concrete columns with no caps or drops, allowing freer run of ductwork and telephone equipment.

The office interior is illuminated by a luminous ceiling extending out through the entrance vestibule. Floors are of rubber and quarry tile. The walls in the office and vestibule are of plaster and brick, of plastic glazed concrete block in the central office equipment room.
Organizing a Firm of Architects For
Growth, Profit and Efficient Practice

By D'Orsey Hurst

How should an architectural firm best organize to prosper? What are some good ways to get commissions? What are key danger signals a firm must look for in its makeup, in how it uses the time and abilities of its personnel? Why does a client choose YOU as his architect?

Knowledgeable answers to these questions are provided here by Mr. Hurst, who is president of D'Orsey Hurst & Company, a New York professional consulting firm working frequently with architects.

We are not concerned here with the characteristics of design, art, aesthetics, nor with the technical aspects of the architectural profession. Our concern is, however, with architects as people in a business environment. As a person, an architect — or other professional man, no matter how able or dedicated he is — usually falls in love, gets married, becomes a father, gets children, and has material needs. Even if this person were not interested in the prosaic and pedestrian fact of money (picture him as an artist of the beret and flowing tie school of 1890), his wife probably is interested in his take-home check, his raises, bonuses, and advancement. Our challenge is this: How can we best provide the environment for optimal conditions of professional practice in a competitive economy?

As a group architects are probably representative — in size, and in the varying composition of your practice mix — of most professional firms. You are all different — just as all of your clients are different. But I will try to discuss matters which have as many common denominators as possible. And may I comment that it is surprising in our work with all types of service firms — including architects, engineers and management consultants — how many problems are common ones. (The codes of ethics are similar, and surprisingly, even without the constraints of codes, service firms such as Public Relations find pragmatically that clients and prospects expect conduct that is similar to professional ethics if they are to earn respect and dignity.)

The growing population of the United States, together with the trends of urbanization, mechanization, and automation are creating more and more needs for the services you render. There are more opportunities for large integrated firms offering diversified and collateral services — and there are also more and more needs for smaller firms offering either specialization or what is perceived as the personal contact and interest of the principals.

Where Do You Want To Be?

This article might well be called "How to run a better shop" — a "better shop" connoting optimal size and continuity of work, profitable and efficient practice. Architects, I am sure, are too intelligent to expect a pat new formula to solve all problems — for that we do not have.

The head of an engineering company kept insisting that there must be something big — "a giant forward step" which could be taken. To our knowledge, however, the dramatic innovation for which he had hoped simply does not exist.

There is one step, however, which is basic and can be giant in end result: a decision to review and evaluate where you are — and where you want to be.

This sounds easy and pat. But believe me, to do it properly is a tight and toughly disciplined exercise. Professionals can be understandably lax in doing this because of the urgencies of their own time and client pressures. It's the old story of the shoemaker's children!

In addition to the problem of finding time to examine their practices as businesses, there is another basic element involved in getting professional firms to think and operate as business units. It was once expressed to me this way by an older, esteemed engineer: "Regrettably, there seems to be a rather low correlation between technical competence and administrative skill."

What I was referring to is planning and the setting of objectives — based on a realistic assessment of your strengths and weaknesses.

It means asking the question to provide perspective — and to provide a basis for planning and programming.

Where was your firm five years ago — in 1950 — or post war? What has happened in terms of its practice, its composition and quality, its personnel and their ages? What are their skills, interests, and energy profiles? What is your image as a firm to clients, to prospects, and within the profession? Are you growing with your opportunities, as compared with competition?

Where and what does your firm want to be? In ten years, by 1972? In fifteen years, by 1977? Younger associates may ask — what will their heritage be? Only by thinking this far ahead can decisions be threshed out on the steps needed to organize for growth, profitability, and improved practice.

The questions in your review and planning can be developed fairly easily. There are four: (1) Where do we want to go? (2) Are we organized to get there? (3) Have we the right people to do the job? and (4) How can we measure our progress?

This analysis will highlight the thorny and tough questions, and then you can establish priorities while stressing the importance of overall planning before touching on specific elements.

The Importance of Business Development

Early in your objective analysis of your firm and its future, you will most likely arrive at a rather basic conclusion:

The development of commissions is essential to a firm’s survival, let alone its stability and growth.

Yet, as fundamental as this sounds, acquiring new commissions is frequently the most poorly managed function in an architectural firm.
As a Central AIA Chapter meeting notice stated:

"Until the architectural firm, large or small, has gained some proficiency in solving commission acquisition and efficient practice, it will lack the time and freedom from frustration necessary to fit the dimension of design into its place of primary importance; and although a firm may consistently receive honors for its design, unless it maintains a capability in solving its practical problems, it cannot long continue to maintain a place of importance in the profession."

Development of commission is known in general business today as marketing, and we have heard much about the marketing concept, the retailing revolution, the high cost of distribution, and the impact of advertising. But I submit that the marketing problems of any consumer or industrial firm pale when compared with your marketing problems.

The marketing of a service - an intangible product - is much more demanding than the marketing of a product which has known and measurable characteristics. The usual measures are useless, and we have in their place such imponderables as reputation, references, and recommendations. Add to this the strictures of a professional code, and the problem becomes so insurmountable to many that they make little or no attempt to solve it.

Such a well-intentioned but completely unrealistic approach to new business — hiding behind an aura of ultraprofessionalism — causes many fine firms to operate on a plateau, drifting pleasantly while more alert competitors show significant growth.

**Reviewing Present and Past Work**

One of the best ways to tackle the problem of business development is to take stock in effect, to make an objective inventory of present and past work.

First, ask the questions **internally**:

- What kind of work are we doing now?
- What kind of work have we done?

Then, if you can, consider the subjects **externally**, from an outside point of reference:

- How is our work perceived by our clients and our competitors?
- Do present and past clients have a different view of us than do prospective clients?

(Although the Profession distinguishes between Business Development and Public Relations, we think it can be misleading to think of them separately. The above questions alone indicate how intertwined they are.)

I would like to accent "quality" of current work as the basis of any marketing effort. My injunction on the importance of quality of practice is that the best development — the finest of public relations programs — will ultimately be meaningless if the work is perceived as sub-standard.

There will always be "hacks and quacks" in every profession, but if the good practitioners are better known, there will be fewer of the undesirable.

Before proceeding with our discussion, however, let me recognize these basics — for they must not be forgotten any more than they should be relied upon completely:

1. Good work is fundamental.
2. The best source of new clients is a word-of-mouth reference and recommendation.
3. Being known and respected within the profession can be rewarding not only psychologically, but also monetarily, as more architects become involved in the selection of other firms, especially in public works.

**Pinpointing New Business Targets**

Your business problem is to make sure your present and past clients are aware and reminded of you. How do you remind them of how good you are... how do you keep in touch... and how do you accomplish this most effectively on a
time-budgeted plan?
Whom do you see and cultivate — particularly since decision-making more and more involves several people — with fewer and fewer awards controlled by one single powerful individual?

Let me tell you about the results of some of our research in this field of the decision-making process — the pinpointing of the key new business targets when selling a service to management and governmental agencies.

We have entitled it the D-I-P process — Deciders, Initiators and Influencers and Permiters.

1. The Initiators
These are the men in the client's company who make the initial inquiry or "feeler" to you. Obviously, in order to do this, they must have heard of you (or, from you) — directly or indirectly.

2. The Influencers
These are the various executives all along the line — committee members and others in staff positions whose good will is pretty important. They don't make the final decision, but they influence it indirectly.

3. The Permiters
These are the executives higher up the line who seemingly are not involved in the decision, but who — by a nod (or by the lack of a nod), by a raised eyebrow or by a look (or perhaps by silence) — can express approval or disapproval in the narrowing-down process leading to final selection of an architect.

4. Finally, and of great importance, but not necessarily of greatest importance, we have The Deciders.
These are the line officers who are charged with the responsibility for making the actual decision. However, as we have pointed out in discussing the other three targets, the Deciders do not make their decisions in a vacuum. They are influenced all along the line — by the Initiators and the Permiters. And, if the Initiators did not bring up your name for consideration at all — then of course the real decision-makers involvement with you is profoundly simple: ZERO.

As one of our recent reports to a firm of architects pointed out: "Never neglect the top officials, but never cultivate them alone ...." Organizing Internally for New Business
Let me, if I may, quote again from one of our reports ... and I am sure you will understand why all of our work is necessarily on a most confidential basis. As I write this, you will probably recognize this particular problem, for it occurs in many firms ... I quote:

"The problems of ... stem largely from the limitations of the concept of a one-man business. The 'Firm' is not a Firm as much as it is the lengthened shadow of one man. It long ago passed the point of size and diversity of work where one man could effectively maintain complete control and still continue personally to generate all or nearly all the business without either inviting physical breakdown, or neglecting to build for the future, or both. In our opinion, it would not be prudent to postpone the steps necessary to remold (the Firm) into less of a one-man organization, and to plan for still further growth."

This, of course, is pretty tough medicine for the founder of a firm to take.

Gentlemen, the growth of your firms ... your own personal growth ... is directly keyed to the business-development function.

What happens in many firms?
In some cases the founder — or the principal officers — reserve the new business function exclusively for themselves and give it too little attention.

At another extreme we have a firm which, either in desperation, or because of a professional distaste for "selling", hires a front man or salesman who doesn't know what he's talking about.

Neither extreme is a correct solution. Let me turn again, if I may, to one of our reports — a summary of a job description for a position to be known internally within our client's architectural-engineering firm as "New Business Development Representative."

"The man selected — whether he comes from inside or outside the organization — should be architect-trained so he can fully appreciate the capabilities of the organization he represents, understand the services he sells, and work with and command the respect of the inside staff members. He should be a man of commanding presence and should be able to express himself effectively, both orally and in writing."

Of course, in many ways, the New Business function should be everyone's responsibility ... but never at the risk of having it no one's responsibility.

Case Example — One Firm's Incentive Plan
At the risk of being taken to task on specific points, I would like to outline for you the incentive bonus system recently prepared for one of the larger architectural firms. Let me say in advance that we have purposely altered some of the actual figures to preserve the confidential nature of the plan.

Caution No. 1: I do not mean to suggest that this plan would be aplicable in smaller firms — or perhaps even in some of the larger firms. All I can say is that this particular plan enabled the management of one firm to more effectively organize, measure and reward New Business efforts of partners and staff.

Caution No. 2: Note that this plan is an over-all bonus system. It covers most aspects of performance, including New Business. But, as you will note, it appropriately gives greatest weight to professional performance.

The fund is to be divided into four parts as follows:

Part I — 60% — to motivate all personnel to superior all-around performance.

Part II — 20% — to give all deserving personnel a sense of participation in the firm.

Part III — 15% — to encourage and reward new business development activities.

Part IV — 5% — to encourage and reward certain professional activities.

The total amount to be available for distribution as above will be determined as a percentage of profits. (Some firms may wish to allocate only 5% or 10% of profits, others may wish to allocate as much as 20%, 50% or more).

PART I
A. Superiority of performance and results in carrying out assigned duties.

(60 points)

Considerations: (1) Comprehension of assignments and degree of understanding with which they are undertaken; (2) thoroughness, completeness and time displayed in planning conduct of assignments; (3) diligence and persistence in completing assignments undertaken within allotted period of calendar and man-power; (4) resourcefulness and diplomacy with which obstacles have been surmounted; (5) quality of performance;
(6) effectiveness in utilizing the services of others, and in evaluating their performance; (7) satisfaction of client; (8) satisfaction of office with performance.

B. Imaginativeness, ingenuity, and good judgement shown in seeking out opportunities for the betterment of the firm and its profitability. (40 points) Considerations: (1) Consistency and quality of ideas developed; (2) demonstrated ability to screen, weigh, and perfect the worthwhile ideas developed; (3) demonstrated ability to present such perfected ideas and opportunities; to secure the willing and enthusiastic support of others for them; (4) demonstrated ability to develop practical plans for putting such ideas into effect.

PART II

A. Length of service (5 points) Considerations: Actual number of months' service with the office according to a scale (i.e. 1 point for 7 months to 24 months, 5 points for over 120 months).

B. Attendance and punctuality (20 points) Considerations: (1) Punctuality at the office and in keeping appointments; (2) regularity of attendance; (3) number and extent of absences, excused or otherwise; (4) hours of work performed.

C. Effort and caliber of performance (50 points) Considerations: (1) Diligence; (2) sense of responsibility; (3) comprehension of assignments and duties undertaken; (4) execution of assigned duties and other tasks undertaken.

D. Human relations (10 points) Considerations: (1) Demonstrated ability to get along well with associates; and (2) ability to get along well with client's personnel.

E. Professional standards of conduct (15 points) Considerations: (1) Observation of the professional standards of AIA; (2) compliance with good professional practices and conduct in keeping with the dignity befitting the profession, (refraining from divulging the identity of clients, discussing their problems, etc., in public places).

PART III

A. Participation in certain types of outside activities (10 points) Considerations: (1) Opportunities available to participate in community, civic, professional and industrial activities; (2) extent of participation; (3) utilization of such participation to widen circle of potentially useful acquaintanceships.

B. Generating "leads" on new business (40 points) Considerations: (1) Alertness in generating leads that are genuine, timely, new and worthwhile; (2) initiative displayed along similar lines.

C. Discrimination and selectivity in reporting leads (20 points) Considerations: (1) Discrimination in reporting "leads"; (2) selectivity in screening information before reporting it as a "lead".

D. Development of "leads" to prospect stage (20 points) Considerations: Skills utilized, or where personal skill is lacking, the collaboration with others in the firm in utilizing the various tools of sales promotion, including direct mail and personal calls to develop a "lead" to prospect stage.

E. Conversion of prospects to clients (10 points)

PART IV

A. Professional society activities (30 points) Considerations: (1) Membership in professional societies and AIA; (2) attendance at local meetings; (3) offices held and committees served upon; (4) papers presented either regionally or nationally; (5) meetings and/or seminars led or conducted; (6) papers published.

B. Competitions (30 points) Considerations: (1) Number of competitions entered; (2) number of competitions where "Honorable Mention" or other recognition was secured; (3) number of competitions won.

C. Honors (40 points) Considerations: Other honors awarded whereby the employee has made a major and distinctive contribution reflecting favorably both upon the office and upon himself.

A rather intricate bonus system such as the one outlined above obviously cannot be fully described in the short space available here. There are several built-in checks and balances — a weighting arrangement, guides concerning maximum percent of salary, etc.

As I said, I am not proposing this rather fancy scorecard for all firms, but I think it reinforces our firm belief that no solution to any of these intangible problems will work in every firm. Rather, proven principles must be tailored to the personality and requirements of each firm.

(To be continued in Wis. Arch. Dec. issue.)
CHAPTER NOTES

The Board of Directors of the Wisconsin Chapter, AIA met on October 5, 1962 at the Simon House, Madison with the following members present: Francis J. Rose, John Brust, Allen Strang, Maynard Meyer, A. A. Tannenbaum, Willis Leemhouts, Karel Yasko, Emil Korenic, William C. Weeks, Herbert J. Grassold, Eugene Wasserman, Roger Herbst, Robert Sauter, Regional Director Julius Sandstedt and G. Schuler were guests at the meeting.

The Directors from the three Chapter Sections reported on activities in their respective areas. All sections have held interesting informative meetings in the last 2 months and activities are planned which will benefit all members.

Several membership problems were considered and resolved by the Board. Report was made on the death of three members: Walter Domann, Elliott Mason and Anthony Wuchterl.

Approval was given to the 1963 Honor Awards program. This matter was referred to the Honor Awards Committee with Paul Klumb as Chairman. After the committee has proposed the rules and terms of the program, information will be distributed to the membership. The program will probably be in the same manner as in previous years.

Two cases of alleged unethical practice were considered by the Board. In one instance, formal charges are to be filed with the Institute immediately. The second case will require further investigation before proceeding.

Members of the Board continued their discussion of a revised fee schedule and restrictions on firm names and titles. Due to the various and complicated intricacies of both of these items, discussion will be resumed next month.

The meeting was adjourned at 4:10 p.m. The next Board of Directors meeting will be held on November 9, 1962.

The October meeting of the Northeast Division of the Wisconsin Chapter, AIA was held at the Club Terrace, Neenah, Wisconsin. Twenty-four members and guests were present.

The program chairman for the evening was Robert Yarbro. The program consisted of a presentation of recent projects by the offices of Eugene Wasserman, Irion and Reinke, and Boehlter & Gimnow. A brief discussion of the project followed each presentation.

The business meeting was opened by the President, Larry Bray. A motion passed to accept the Secretary’s Report and the Financial Report as read.

A certificate of Associate Membership was presented to Mr. Swart of the Pipcorn Co. appeared to discuss the possibility of starting a CSI chapter in our area. It was explained that although Architects must start a CSI chapter, the “work” is generally done by the contractor and sub-contractor members. Ben Seaborne is to contact members in our Division as to their desire for a chapter, and report at the December meeting.

Two cases of alleged unethical practice were considered by the Board. In one instance, formal charges are to be filed with the Institute immediately. The second case will require further investigation before proceeding.

Members of the Board continued their discussion of a revised fee schedule and restrictions on firm names and titles. Due to the various and complicated intricacies of both of these items, discussion will be resumed next month.

The meeting was adjourned at 4:10 p.m. The next Board of Directors meeting will be held on November 9, 1962.

The October meeting of the Northeast Division of the Wisconsin Chapter, AIA was held at the Club Terrace, Neenah, Wisconsin. Twenty-four members and guests were present.

The program chairman for the evening was Robert Yarbro. The program consisted of a presentation of recent projects by the offices of Eugene Wasserman, Irion and Reinke, and Boehlter & Gimnow. A brief discussion of the project followed each presentation.

The business meeting was opened by the President, Larry Bray. A motion passed to accept the Secretary’s Report and the Financial Report as read.

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The December 3 meeting place will be announced. It will be followed by a social event.

The Legislative Committee of the Wisconsin Chapter met on Tuesday, Oct. 25, at 9 a.m. at the Tuckaway Country Club. Present were: Allen J. Strang, John W. Stein-

Wisconsin Architect — November 1962
CAN YOU SPARE 60 SECONDS TO TAKE AN...

ARCHITECTURAL QUIZ
Cement Lime Mortar – Versus – Masonry Cement Mortar

To properly evaluate this subject it is first necessary to clear up misconceptions.

We suggest that you take the following quiz. If you are not positive of all the answers...
the information contained in the next pages will be of valuable help to you.

QUESTION
1. Leaky brick walls result from mortar shrinkage?  
   • True  • False
2. Expansion of mortar is never a problem?  
   • True  • False
3. Masonry cements are patented mixtures; there are no specifications to control their properties?  
   • True  • False
4. Any bagged lime is suitable for mortar?  
   • True  • False

The explanations of these and many other questions are contained in the article "MORTAR FOR UNIT MASONRY." May we suggest that YOU make a study of this article. You may also find this sheet to be a useful addition to your technical file on mortars.

PORTLAND CEMENT ASSOCIATION
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A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work
MORTAR FOR UNIT MASONRY

A brief explanation of the important properties and practices necessary for quality mortar.

Mortar for unit masonry is often specified and prepared with thought and skill. Still, some construction men, of the opinion that mixing a good mortar is “more an art than a science” give little concern to the preparation of this important material. Others, caught in a controversy, find the subject confusing.

To stir the apathetic and help the confused, some of the knowledge developed by practical observers and laboratory scientists over the years follows in abbreviated form. Mortar is a combination of one or more cementitious materials, a clean well-graded sand and enough pure water to give a plastic, workable mix. The materials and their proportions should be chosen to give the mortar a good balance of the following desirable properties.

Workability — A workable mortar is uniform, cohesive and of a consistency that makes it “usable” to a mason. A workable mortar is easy to spread, holds the weight of the units, makes alignment easy, clings to the vertical faces of masonry units, and readily extrudes from the mortar joint but does not drop or smear. Its particles do not segregate.

Water Retention — Water retention is that property that prevents rapid loss of mixing water (hence, prevents loss of plasticity) when the mortar contacts an absorptive masonry unit. Also, when the mortar is in contact with a masonry unit of low absorption, a high degree of water retention prevents floating of the unit due to “bleeding.” Water retention is measured in the laboratory by the “flow after suction” test which simulates the action of absorptive masonry units. Since water retention is an important property and is correlated to workability, it is usually mentioned in mortar specifications.

Durability — The durability of a mortar is measured primarily by its ability to resist repeated cycles of freezing and thawing under natural weather conditions. High compressive strength mortars usually give good durability, but a more important factor is that the mortar should have entrained air.

Each cubic foot of air-entrained mortar contains billions of minute, well-distributed and completely separated air bubbles. These bubbles absorb the expansive forces of freezing water. Recent laboratory tests show that mortars with adequate air-entainment withstand hundreds of freeze-thaw cycles, while other mortars soon fail.

Appearance — Uniformity of color of the joints greatly affects the overall appearance of the masonry structure. Atmospheric conditions, moisture content of the masonry units and admixtures influence the shade of the mortar joints. Probably the most important factors are controllable: uniformity of the mix and time of tooling of the mortar joint.

Careful measurement of materials and thorough mixing are important to uniformity of the joints. Control of this uniformity becomes more difficult when more than one cementitious material is used.

If the mason tools the joint when the mortar is relatively hard he will get a darker shade than if he tools the joint when the mortar is relatively soft. Thus, tooling the joints at like degree of hardness is important to a uniform color.

RECOMMENDED MASONRY CEMENT

MORTAR MIXES

(proportions by volume)

<table>
<thead>
<tr>
<th>Type of service</th>
<th>Cement</th>
<th>Mortar sand in damp, loose condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>For regular service</td>
<td>1 masonry cement</td>
<td>2½ to 3</td>
</tr>
<tr>
<td>Subject to extremely heavy loads, violent winds or earthquakes. Isolated piers.</td>
<td>1 masonry cement plus 1 portland cement</td>
<td>4½ to 6</td>
</tr>
</tbody>
</table>

Consistent Rate of Hardening — The rate of hardening of mortar is the speed at which it develops resistance to indentation and crushing. It is sometimes confused with a stiffening caused by rapid loss of water (as in the case of low water retention mortars or highly absorptive units). Too rapid hardening may interfere with the use of the mortar by the mason. Overly slow hardening may impede the progress of the work. Slow hardening also may subject the mortar in winter to early damage from frost action. A well defined, consistent rate of hardening assists the mason in building the wall and in tooling the joints at the same degree of hardness and thus obtaining a uniform joint color.

Strength — The strength of the mortar as it is used in this article and in common practice refers to the compressive strength. Confusion sometimes arises when compressive strength, or tensile strength, or tensile bond strength, or flexural bond strength of the mortar to the unit are not properly defined and are used carelessly in the same discussion.

There is much controversy over whether mortars should be very weak or very strong in compression or something in between. The controversy centers over a continual attempt to achieve crack-free masonry. For every person who says that weak mortar will be conducive to fewer cracks, another will say just the opposite. In the opinion of many, research and field experience to date fail to make a strong case for either viewpoint.

There are few reports of structural distress or failures due to compressive loading and laboratory tests show that the compressive strength of walls is not greatly sensitive to mortar strength. Therefore, it is not important to use greater than moderate strength mortars for general construction.

Bond — Bond may refer to (a) the force required to separate two masonry units (tensile bond strength as mentioned above) or (b) the extent of bond as measured by the degree of contact of the mortar with the units. Actually neither the extent of bond nor tensile bond strength is simply a property of the mortar alone; both depend more on the surface physics (texture, absorption, etc.) of the masonry units and the workmanship of the mason.

Strength of bond measurements of similar materials in repeated laboratory tests show large unexplainable variations. Certain investigators have concluded that, in general, and always assuming a workable mortar, bond strengths increase with increases in
Low Volume Change — It is popularly believed that mortar shrinkage can be extensive and can cause leaky walls. Actually, the maximum possible shrinkage in a mortar joint is so small that any resultant crack could not be seen with the naked eye.

Much research and field observations have shown that good workmanship, good design and good units are necessary to obtain a watertight wall. Shrinkage of mortars that have a good balance of all desirable properties is insignificant.

Expansion due to unsound ingredients has caused serious disintegration of masonry in the past. Soundness can be measured by an autoclave expansion test which requires that a 1"x1"x10" bar of 10" length be made of the cementitious material and subjected to high pressure steam for a specified time. This treatment produces reactions in any unsound ingredients. If unsound materials are present in a great amount, the bar will expand more than the allowable and indicate potentially harmful expansion of the material in the wall.

In addition to properties above, permeability is sometimes mentioned. Much research has shown that when masonry walls leak, water does not pass through the mortar, but rather through fine openings. Therefore, except for special instances where the masonry may be subjected to hydrostatic pressures, permeability of all mortars in common use is closely alike and not considered an important factor.

How do the three cementitious products—lime, portland cement and masonry cement—contribute to the desirable properties?

Limes impart workability and water retention to a mortar mix. When using a hydrated lime (a hydrated lime is added to the mortar as it comes from the bag rather than slaking for a period of time) ASTM Designation C 207-Type S is recommended. Specifications for Type S place a limit on the amount of unhydrated particles.

Straight lime mortars harden at a slow, variable rate, develop low compressive strength and poor durability to the freeze-thaw cycle.

Portland cement will harden in the presence of water at a consistent rate, develop high compressive strengths and good durability. Straight portland cement mortars, however, are low in workability and water retention.

Considering a good balance of all the desirable properties in mortars, it is obvious then why combinations of portland cement and lime developed. Over the years experience led to relative standardization in most specifications on a 1:1.8 mix (portland cement, lime and sand by volume).

Recently, masonry cement mortars proportioned one part masonry cement (ASTM C 91, Type II) to a maximum of three parts sand have come into extensive use. Masonry cements produced by portland cement manufacturers are designed to improve and simplify the mortar mix by combining materials in one package under careful control. The proportions of the materials (such as portland cement, natural cement, finely ground limestone or Type S hydrated lime) in a bag of masonry cement are chosen to give good balance of all the desirable properties. These desirable properties are enhanced by additions of an air-entraining agent and gypsum to regulate the time of set.

Masonry cement mortars are considered to have three principal advantages:

1. Because the materials are interground before they enter the package, the uniformity of the mix is not so dependent upon working conditions as for the job mixed combinations. As a result, the mortar from batch to batch and day to day is consistent in quality and appearance.

2. By ASTM and Federal Specifications, masonry cements are required to contain a minimum of 12 percent air. With proper job mixing, air-entrainment insures a high degree of durability to the freeze-thaw cycles and contributes to the workability, cohesiveness, plasticity and water retention of the mortar. Air-entraining agents are added in measured quantities during manufacture. For proper air content in job mixed portland cement-lime mortars, an air-entraining agent would need to be added at the job and the mix would have to be checked regularly with an air meter.

3. ASTM Designation C 91, "Standard Specifications for Masonry Cement," limits the autoclave expansion to not more than one percent. Tests have shown masonry cement mortars to be well below this limit. This is a guarantee against unsound material. There is no such guarantee in portland cement-lime mixes.

Sand — Sand should be clean and well graded (Specifications for Aggregate for Masonry Mortar, ASTM C 144). There should be all sizes of particles ranging from very fine to coarse for best workability. Too much sand of any one size should be avoided. Sands deficient in fines generally produce harsh mortars, while an excess of fines will increase the mixing water demand (and possibly the cementitious material requirement) which will increase shrinkage.

Mixing — Thorough mixing is important to the development of the potential desirable properties of any mortar and thorough mixing requires time. Mortar should be mixed at least five minutes after all materials are in the mechanical mixer. Less mixing time may result in non-uniformity, poor workability, low water retention and less than optimum air content.

Retempering — Mortar that has been mixed but not used immediately, tends to dry out and stiffen. Loss of water and evaporation on a hot, dry day can be reduced by wetting the mortar board and covering the mortar in the mortar boxes or wheelbarrows. If necessary to restore workability, mortar may be retempered by thorough remixing and by adding water. Although the addition of water may slightly reduce the strength, the effect on the wall is preferable to that which would result from the use of dry, stiff mortar.

If mortar stiffens because of hydration (setting), it should be discarded. Since it is difficult to tell by sight or feel whether mortar stiffening is due to evaporation or hydration, the most practical method of determining the suitability of mortar is on the basis of time elapsed after mixing. When the air temperature is 80 deg. F., or higher, the mortar should be used within 2-1/2 hours of the time it was mixed. When the air temperature is below 80 deg. F., the mortar should be used within 3-1/2 hours. Mortar that has not been used within these limits should be discarded.

Preparation of mortar in cold weather — The temperature of the mortar when placed in the wall should be between 70 deg. F. and 190 deg. F. Higher temperatures may result in fast hardening, making it impossible for the mason to give good workmanship. Heating the mixing water is one of the
easiest methods of raising the temperature of the mortar. Mixing water should not be heated above 160 deg. F., because of the danger of "flash" set when it comes in contact with the cement.

In freezing weather, moisture in the sand will turn to ice, which must be thawed out by one of a number of methods before the sand can be used. The use of an admixture to lower the freezing point of mortar during winter construction should not be permitted. The quantity of such materials necessary to lower the freezing point of mortar to any appreciable degree would be so large that mortar strength and other desirable properties would be seriously impaired.

To shorten the time required for a mortar to attain sufficient strength to resist freezing action, a calcium chloride admixture is often used. Calcium chloride should be used in a solution. Such a solution can be prepared by dissolving 100 lb. of flake calcium chloride in 25 gal. of water. The resulting solution contains 1 lb. of calcium chloride in each quart. Not more than 1 qt. of this solution should be used with each sack of masonry cement.

Additional information sheets such as "Suggested Specifications for Masonry Cement Mortar" and "Concrete Masonry Construction in Cold Weather" are available free in the United States and Canada on request to the Portland Cement Association.
The following are the selections of the Chapter Affairs Committee of the AIA for July, August and September. (See Wis. Arch. page 29, Sept. '62).

The July, 1962 document selection was "THE NEW CHICAGO PLAN FOR SEPARATE BIDS", published by the Chicago Chapter, AIA.

This result of joint cooperative effort of the Chicago Chapter, AIA through its Building Industry Affairs Committee, together with other construction industry representatives, is worthy of every chapter's thorough scrutiny. Prompted by serious concern for building owners, who are the ultimate victims of bid-shopping and bid-peddling and who never receive the moneys saved through the process, the Mechanical Specialty Contractors' Associations of Chicago initiated this study. A 16-man Joint Industry Committee resulted from the enthusiastic response to their proposals, and its long and careful labors produced this Document-of-the-Month. Procedures recommended in this brochure apply only to the mechanical trades and should not be confused with parallel efforts to correct the same evils in letting of specialty sub-contracts of General Contractors. These methods have been longstanding regular practice of many architects and are required by some government agencies; however, this is the first joint effort, of which we are aware, to document such a procedure.

The August selection was THE MONTANA ARCHITECT, Montana Chapter, AIA. With only 68 corporate members, the Montana Chapter, demonstrates with this document what can be done on a statewide basis to improve the climate for architectural practice. "The Montana Architect" combines many functions normally assigned separate documents by other chapters, but there are two major objectives of this publication: first, to educate laymen as to what the architect does, how he works, how and for what he is paid, how he is educated and how the public is protected; secondly, because Montana is the only state (to our knowledge) that legislates all architectural fees, public or private, to give the voters and decision makers the facts supporting a proposed increase in fees and improvement in the licensing laws. It contains excellent career guidance material, a few cogent arguments answering complaints against extravagant school designs, and presents the capabilities of local architects.

The Sept. selections are: Volume III, Number 2 and Volume IV, Number 1 of the NORTHERN ILLINOIS ARCHITECT, Northern Illinois Chapter, AIA. These issues represent a major achievement in two ways. First, this vigorous chapter has produced a quality periodical though it is one of our smaller components, with a total corporate membership of only 52 at the time these issues were produced. Second, the theme to which both issues devote themselves, the future of the community in which these architects live, is but one part of a carefully planned and executed campaign to create recognition of the architect's role in their community among the local decision makers and opinion molders.

All reports are that the campaign has succeeded beyond expectations, and that Northern Illinois architects are deferred to whenever the future shape of Rockford is under study. This campaign is proof that a carefully conceived, long range effort can improve the climate for practice and the architect's public image.
OBITUARIES

Wallace A. Dimann, secretary-treasurer of the Architectural firm of Reddemann-Domann, Inc. of Elm Grove, died on Saturday, August 25, 1962.

Mr. Domann was born in Madison, Wisconsin on April 3, 1905. He lived in the Milwaukee area the major portion of his life. At one time he worked for the Martin Tullgren and Son Architectural firm. He began his private practice in 1937. The firm of Reddemann-Domann was formed in 1957.

Mr. Domann advanced to corporate membership in the American Institute of Architects in 1947. He was an active participant in the state and local organization functions.

His activities in other organizations were numerous.

Elliott B. Mason, AIA, 64, well known Milwaukee architect, died Saturday, August 11, at Columbia Hospital, two weeks after he underwent surgery.

Mr. Mason was born in Milwaukee on Dec. 16, 1897. He received his bachelor's degree in 1921 and his master's degree in 1923 from Cornell University. He continued his study of architecture as a Rhodes scholar at Oxford University. Later he associated with the late Armin C. Frank, well known architect in the Milwaukee area. Mr. Mason was best known for his work in residential architecture and was considered an expert on Georgian architecture. He created new homes in this style and remodeled notable older homes in the Milwaukee area, among them, the residence of Cyrus Philipp at 1900 W. Dean Rd., River Hills; George F. Kasten, 4645 N. Wilshire Rd., Whitefish Bay; John Emil Brennan, 7710 N. Club circle, Fox Point; he designed an American Georgian (Colonial) residence for the E. T. Foote family at 4100 N. Lake Dr., Shorewood. He completely transformed the interior of the home of A. O. Trostel, Jr., 3232 N. Lake Dr. He also designed the cocktail lounge that overlooks Lake Michigan on the roof of the University Club. Mr. Mason served on numerous committees and was president of the University Club from 1940 to 1942. He maintained a life-long interest in music and was a skilled pianist and organist.

During World War II Mr. Mason served as a teacher in officers training schools in this country and Hawaii. He left the national aviation branch with the rank of Lieutenant commander. Mr. Mason, a bachelor, is survived by two cousins, Mrs. Alfred Cowles, Lake Forest and Mason Phelps, Pasadena, Calif.

Anthony Wuchterl, Associate member of the American Institute of Architects, died Thursday, September 13, of Hodgkin's disease, at the age of 65 in Algoma Hospital, Algoma, Wis.

Mr. Wuchterl, a well known architectural illustrator, was a native of Milwaukee. During his career he worked for the old Buening & Guth architectural firm and Eschweiler & Eschweiler, architects.

He was a member of the Door County Historical Society and the Peninsula Arts Association, was a fourth degree Knight of Columbus and formerly belonged to the Seven Arts Society. Surviving are his wife, Lillian, a brother, Joseph and a sister, Mrs. Ludmilie Zusy, both of Milwaukee.

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Production of the new elbows and tees in market development quantities has already begun. They are injection-molded of unplasticized, or rigid, polyvinyl dichloride, (PVDC). The "trim-line" fittings weigh one-third to one-tenth as much as their metal counterparts, can be cut to length with an ordinary hand saw and permanently joined to fittings by simply brushing on a special liquid cement. Tube Turn Plastics, Inc., Louisville 11, Kentucky.

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Granolux, a revolutionary new marble applied with the stroke of a trowel, has recently been introduced into this country. Used for many years by European builders, this trowelled marble is a result of research development and testing by a leading European manufacturer. It is available in unlimited combinations of color, there is no waste, breakage, storage problem and it can be used on numerous applications where it is not possible to use a rigid panel material. Complete details are available from Cement Enamel Development, Inc., 18556 Fitzpatrick, Detroit 28, Michigan.

Gossamer, a delicate design has been recently added to the contemporary group of Julius Blum treillage. It is available in malleable iron to eliminate breakage and in aluminum for use where light weight is essential. It can be used indoors or outside to form screens, railings, dividers or partitions. Patterns are double-faced to facilitate free-standing installations. Panels are supplied in 27" high by 3½" wide. Julius Blum & Co., Inc., Carlstadt, New Jersey.
WORDS FROM WAF

Wisconsin Architects Foundation introduces two of the architectural students who are receiving tuition aid for the first time this fall:

Patrick Kenneth Jadin, Green Bay, Junior, University of Oklahoma. His scholastic average for his first two years is 3.27 out of a possible 4.0, which puts him in the top 5% of his class. With money gained from working during summer vacations and various jobs on campus, plus a loan under the National Student Defense Plan, he is managing to put himself through school. Chairman M. Glickman of the School of Architecture writes that this student is intelligent and dependable, with fine talent and capability.

H. Stowe Chapman, Wauwatosa, 5th year student, University of Illinois. Attended University of Michigan for 2½ years and University of Illinois 1½ years. He is married and has a year old child. His accumulated grade average is 4.40 out of a possible 5.0. Professor George M. Hodge, Jr. of Illinois predicts: “His performance here is outstanding and I expect him to graduate with high honors, a feat not too often accomplished by students in architecture.” He is putting himself through school plus supporting his family by working during vacations, part time jobs and borrowed money. He has received honorable mention in two national competitions.

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Take a close look at the concrete blocks in this picture... notice their uniform texture and light gray color. They need no finishing to add to their beauty, but if you want to paint, plaster, or panel them, it's an easy job. These blocks are made with USS Garylite Expanded Blast Furnace Slag Aggregate.

Masonry work goes faster when you use Garylite expanded slag blocks because they're easier for workmen to handle. A standard 8 x 8 x 16-inch, three-cored Garylite block weighs 10 to 15 pounds less than the same size block made with other aggregates.

Concrete blocks made with USS Garylite expanded slag are highly resistant to fire. A Garylite block only 4.7 inches thick (solid equivalent) meets the National Board of Fire Underwriters' 4-hour fire-resistance test. Moreover, these blocks are economical; their pronounced cellular structure provides good sound absorption and thermal insulation, lowering overall insulating costs; and Garylite slag blocks require no special fastening devices for furring strips — you can nail right into the blocks. Specify concrete blocks made with Garylite in your next building project.

For further information on USS Garylite Expanded Blast Furnace Slag, write or call:

USS is a registered trademark
Palos Verdes Stone

is a distinctive decorative stone quarried only on the historic Palos Verdes peninsula of southern California. It is available in four related types, characterized by interesting textures and soft neutral colors ranging from off-white through pleasing grays to creamy buff and light tan. Through its range of textures and tones, Palos Verdes Stone affords the architect and builder a wide variety of effects, harmonizing with any color scheme and any period from traditional to contemporary. Permanent, maintenance-free, its beauty has earned it the title of “California’s most distinguished decorative stone.”

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These buildings are evidence again of the wide variation in structural economies gained when Materialite lightweight concrete is specified. Economies are realized in footings and foundations. Spans can be increased without additional depth. And Materialite lightweight concrete's 105 pcf instead of the usual 150 pcf, lends itself to flexible and beautiful design. May we demonstrate Materialite's economy and exclusive advantages?

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