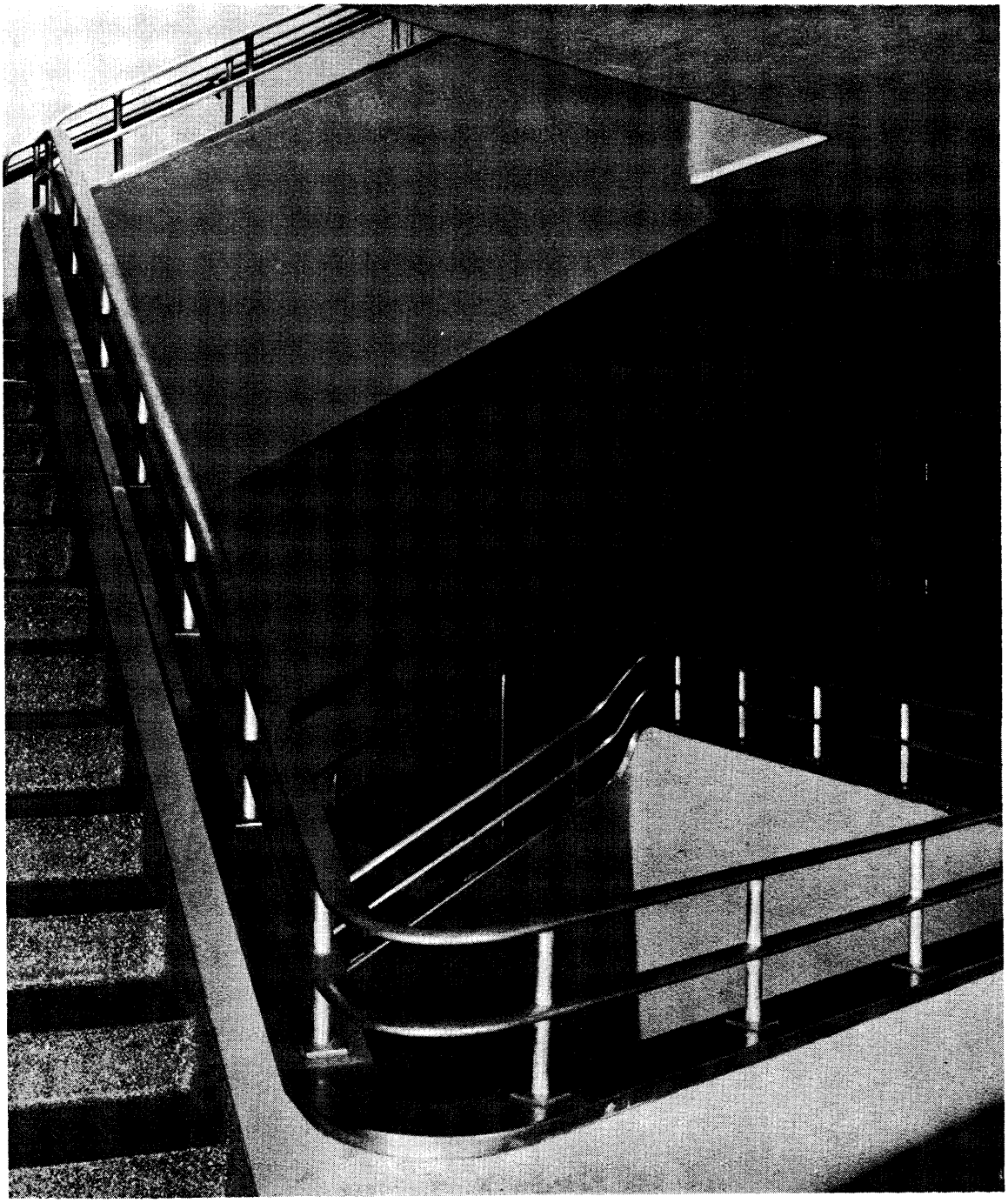
MARCH, 1965

NORTH CAROLINA ARCHITECT

PUBLISHED BY THE NORTH CAROLINA CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS



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Architects: McMinn, Norfleet & Wicker, Greensboro, N. C.

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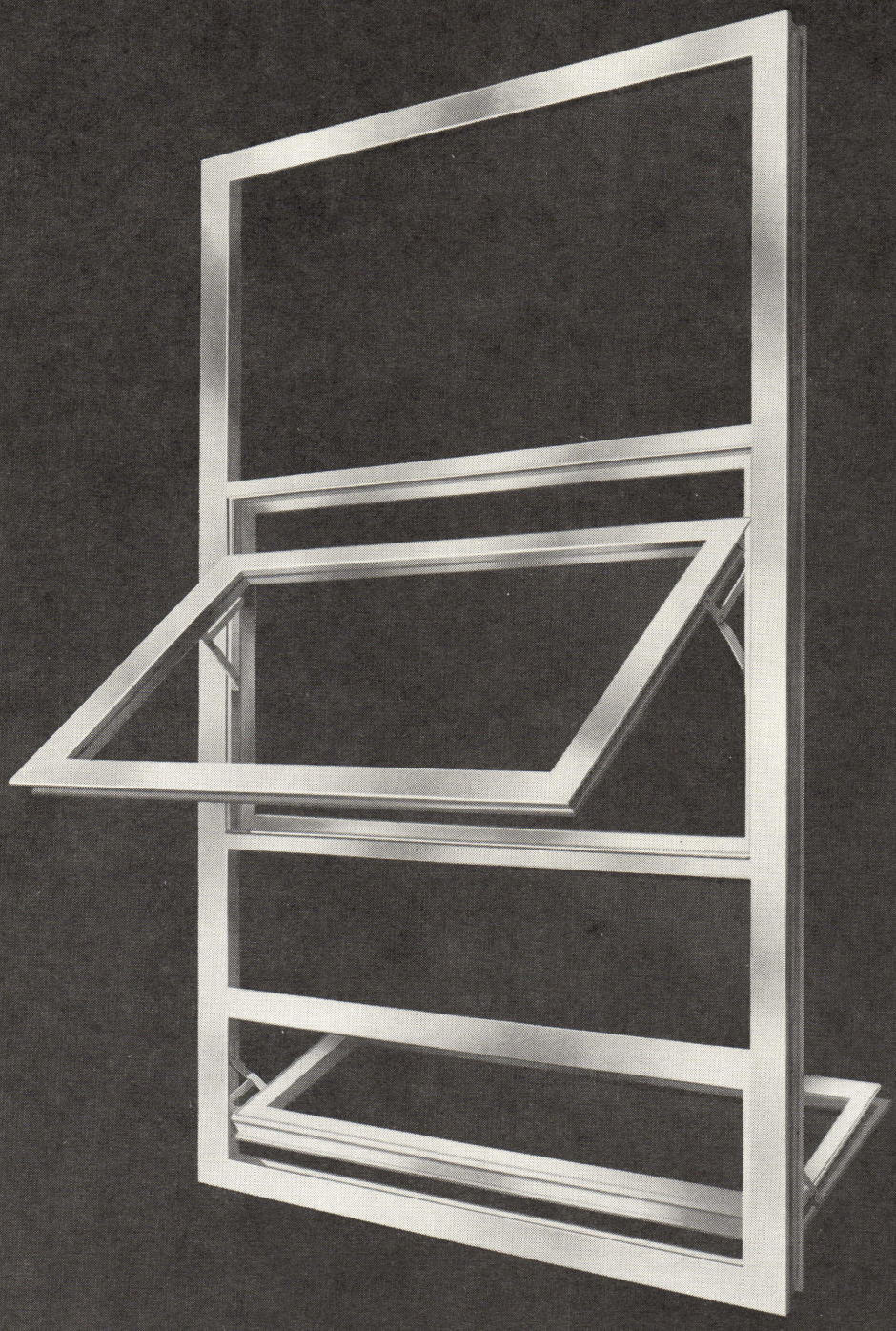

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NORTH CAROLINA ARCHITECT

MARCH 1965, VOL. 12, NO. 3

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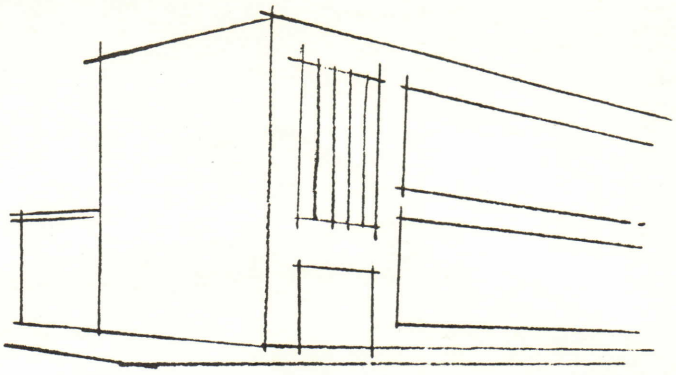

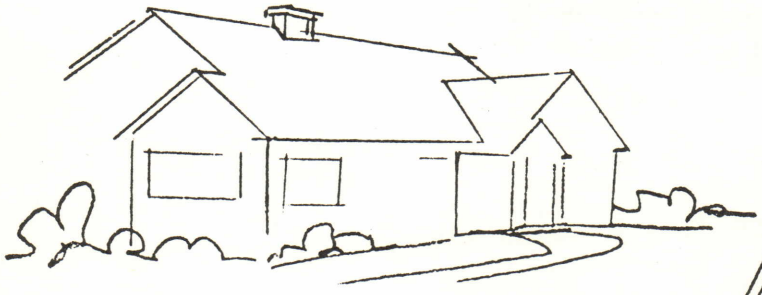

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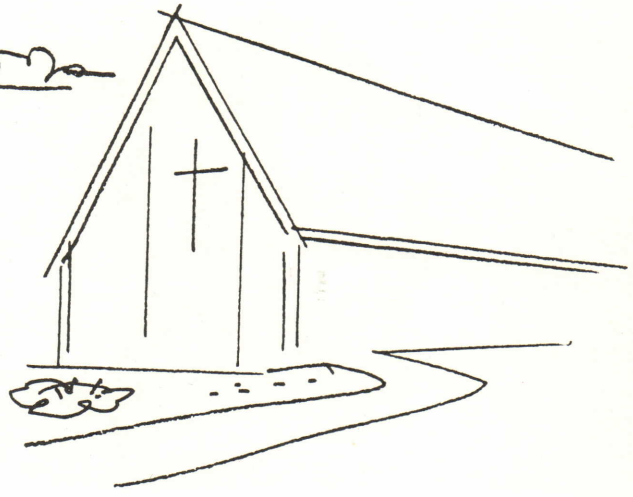

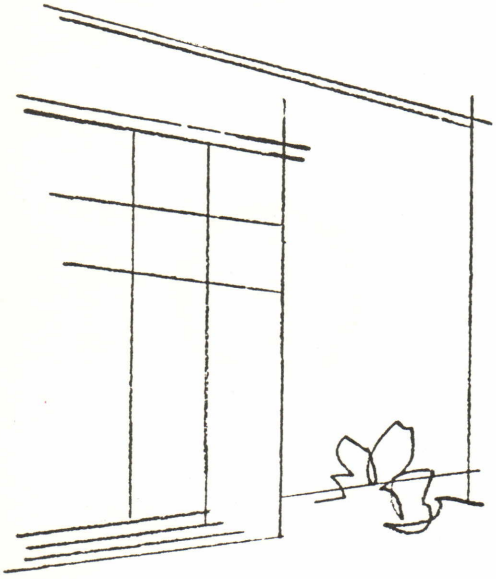

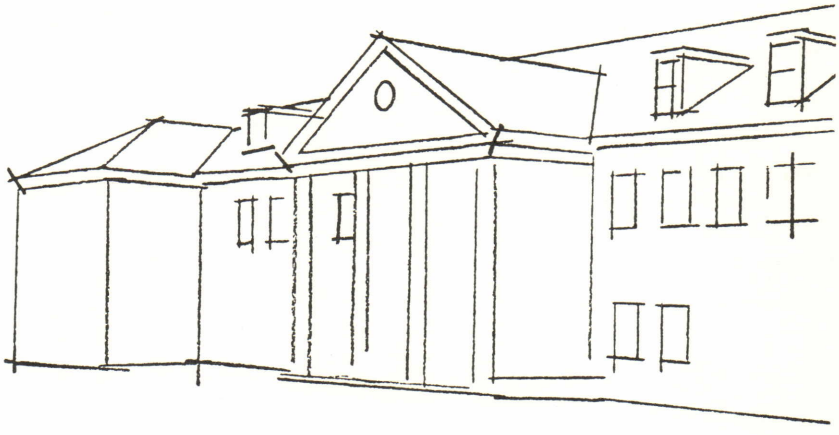

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NCAIA AWARD OF MERIT
1965

architects:
OXENFELD & NEWKIRK, AIA
wilmington

general contractor:
Moore-Fonvielle Realty Company
wilmington

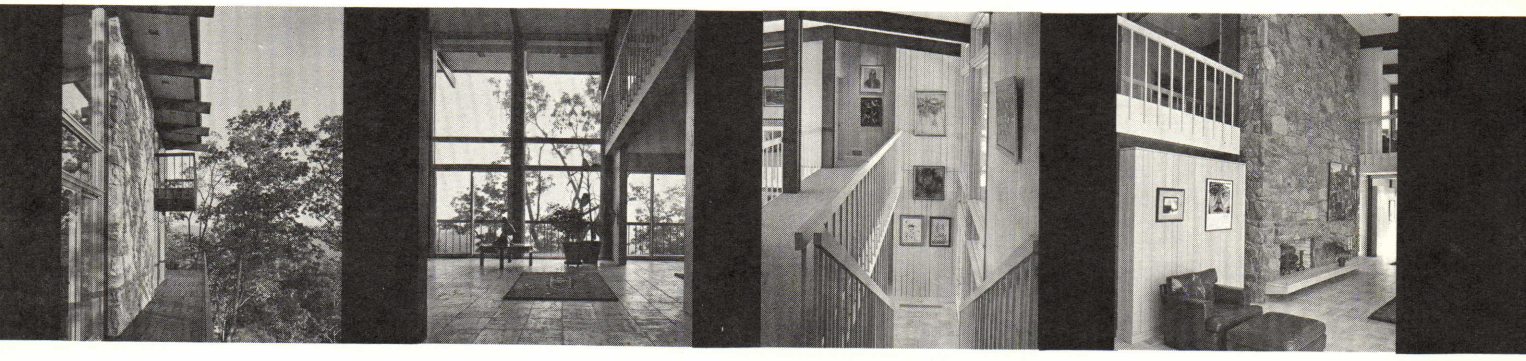
architect:
C. M. SAPPENFIELD, AIA
asheville

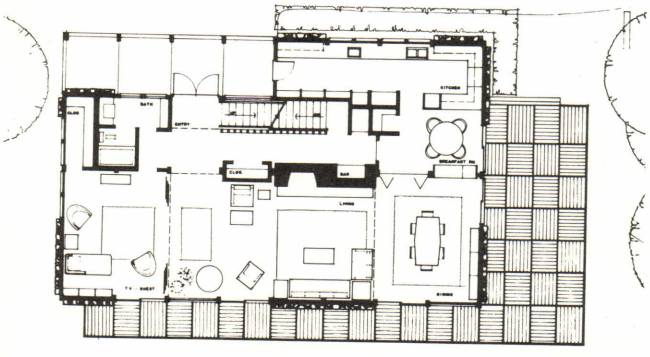
general contractor:
H. Southworth Company
asheville

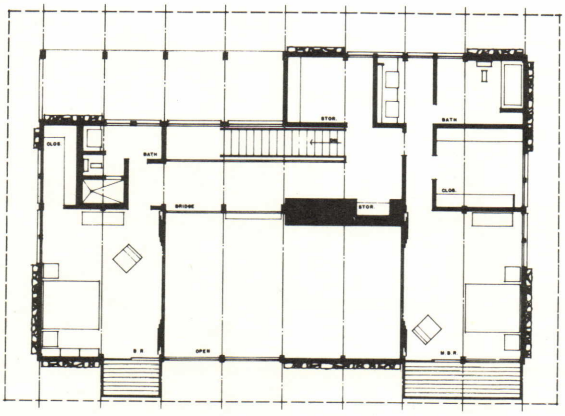
photographs by Edward L. Dupuy

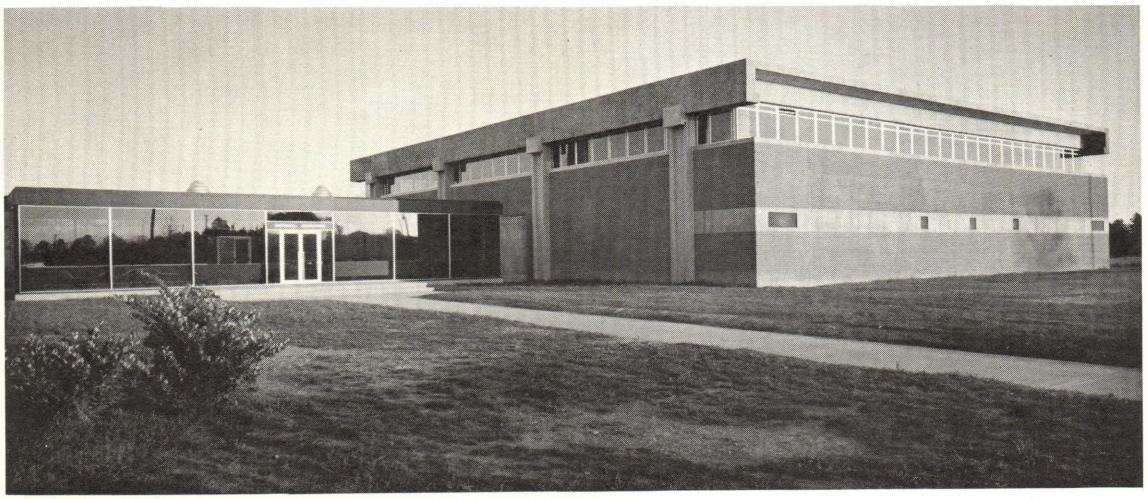
A steep, rocky site overlooking the city of Asheville and encompassing an extensive view of the North Carolina and Tennessee mountains prompted a home to take full advantage of the panorama. The owners, an older couple with occasional visitors, requested that the house have the openness of a one-room house and that balconies be provided from all rooms. Space was also allocated for an extensive art collection.

The exterior of stone and rough-sawn lumber blends into the natural hillside setting. The entire interior is ash panelled with travertine marble covering the main floor and carpeting used on the upper level. Thermopane glass was used throughout the house.



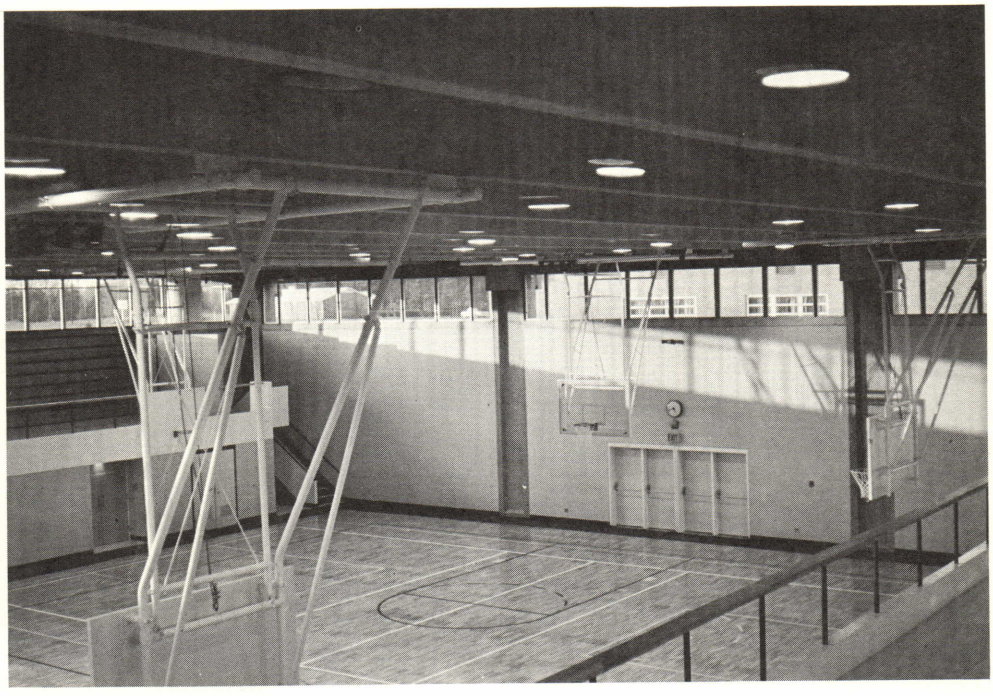


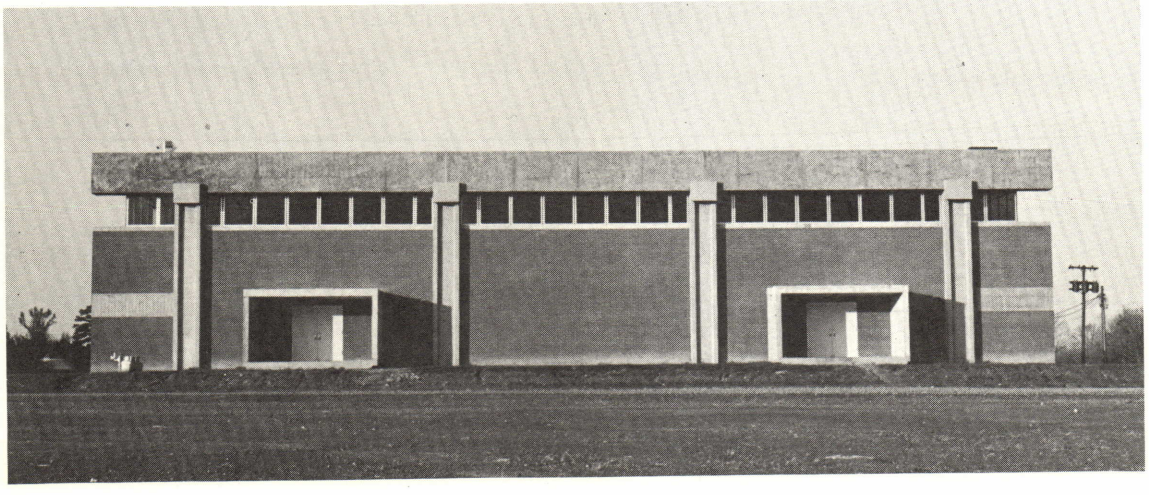




NCAIA AWARD OF MERIT

1965





MONROE HIGH SCHOOL

GYMNASIUM AND STUDENT LOUNGE ADDITIONS

owner:
Monroe City Schools

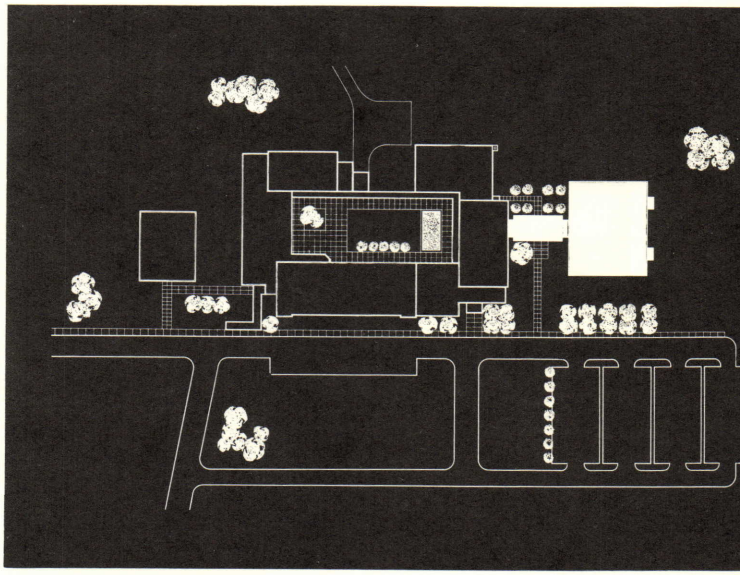
architects:
GRAVES & TOY — ARCHITECTS
Harry C. Wolf, III, Project Designer
charlotte

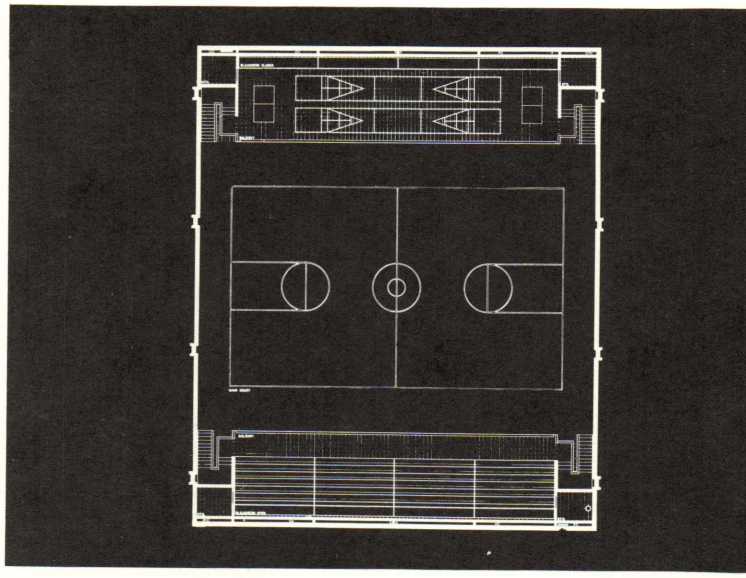
general contractor:
Laxton Construction Company
charlotte

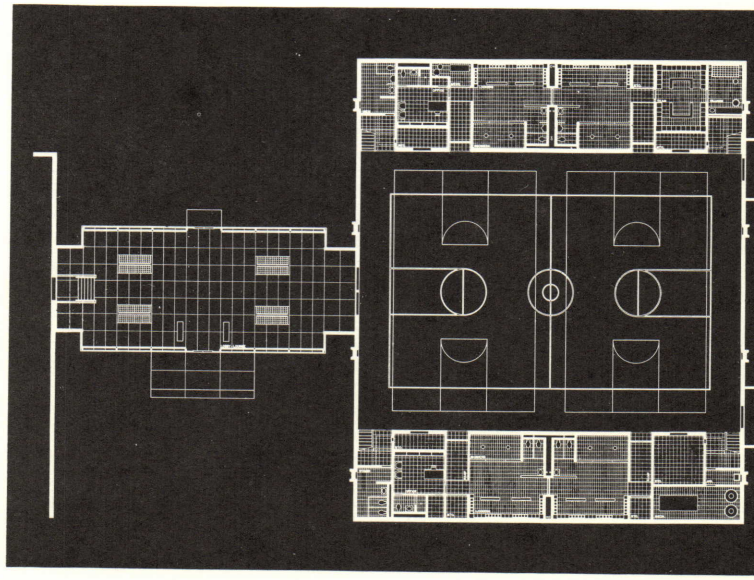
mechanical engineers:
J. M. McDowell & Associates

electrical engineers:
Steven T. Hocsak & Associates

photographs by Tom Walters



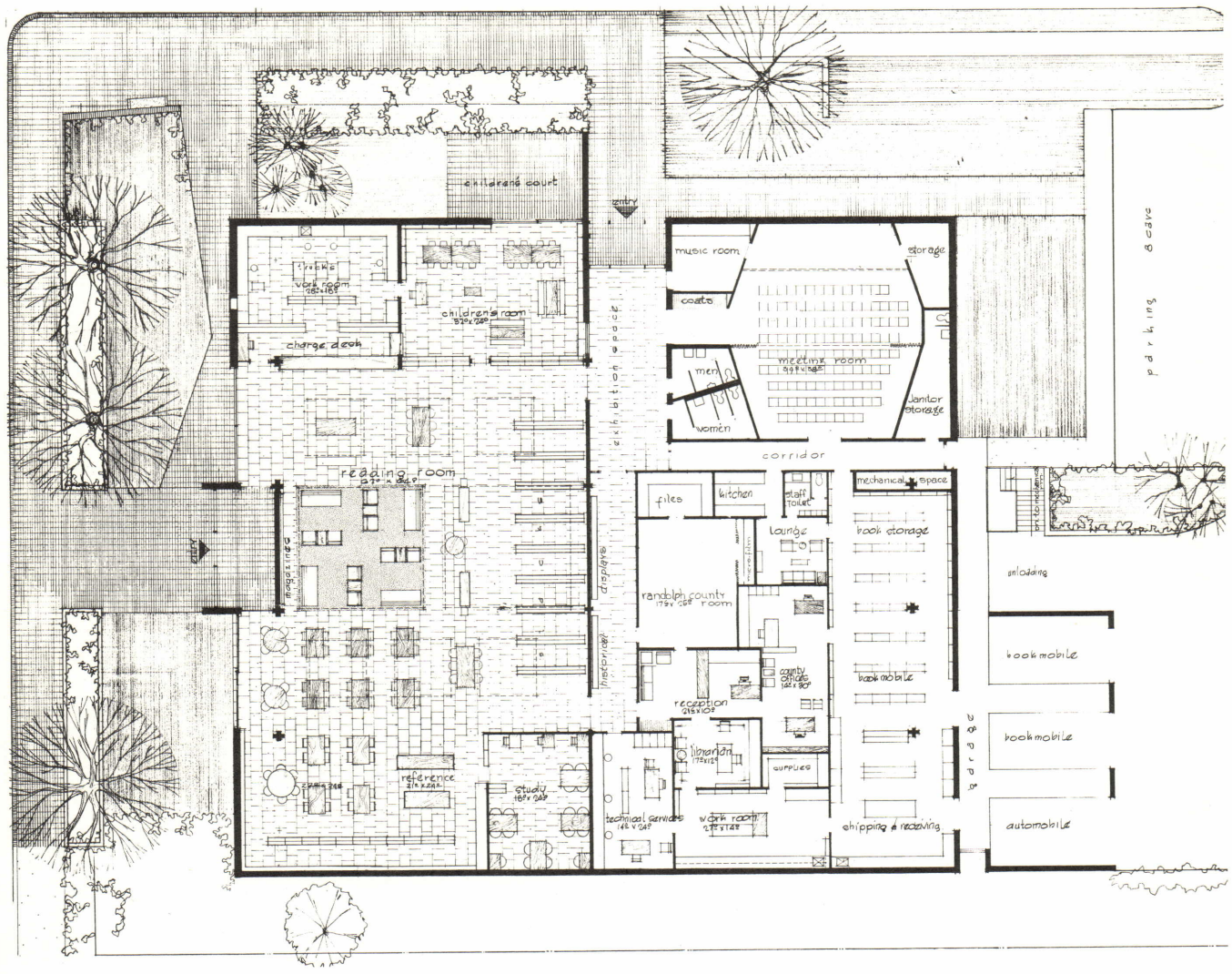




This physical education building was conceived as a single mass, having all facilities within the same volume as the basketball court. The locker rooms are located at a slightly lower level than the main court and are reached by ramps from the court floor. Above these spaces are balconies for spectator seating, thereby completely removing the audience from the court floor. During regular school hours the bleachers at this level fold into recesses and the resulting space is used for tumbling, gymnastics, etc.

There are frequent occasions when visiting teams, both girls and boys, require dressing and shower facilities at the same time as the home teams. Therefore the locker room plans are mirror images about the building centerline. A double door, which in day to day use is open, closes at this centerline to provide for separate locker rooms.

A glazed pavilion connects this building with the existing structures and in doing so creates an entrance court for the physical education building. Here a ticket and concession stand will be used during events to which the public is invited. At the same time, this space provides a secondary overflow lobby for the adjacent existing auditorium. During the day, this serves as a student lounge.



NCAIA AWARD OF MERIT

1965

ASHEBORO — RANDOLPH PUBLIC LIBRARY

asheboro

owner:
City of Asheboro

architects:
J. HYATT HAMMOND ASSOCIATES
J. Hyatt Hammond, AIA —Alvis O. George, Jr., AIA, Designers
asheboro

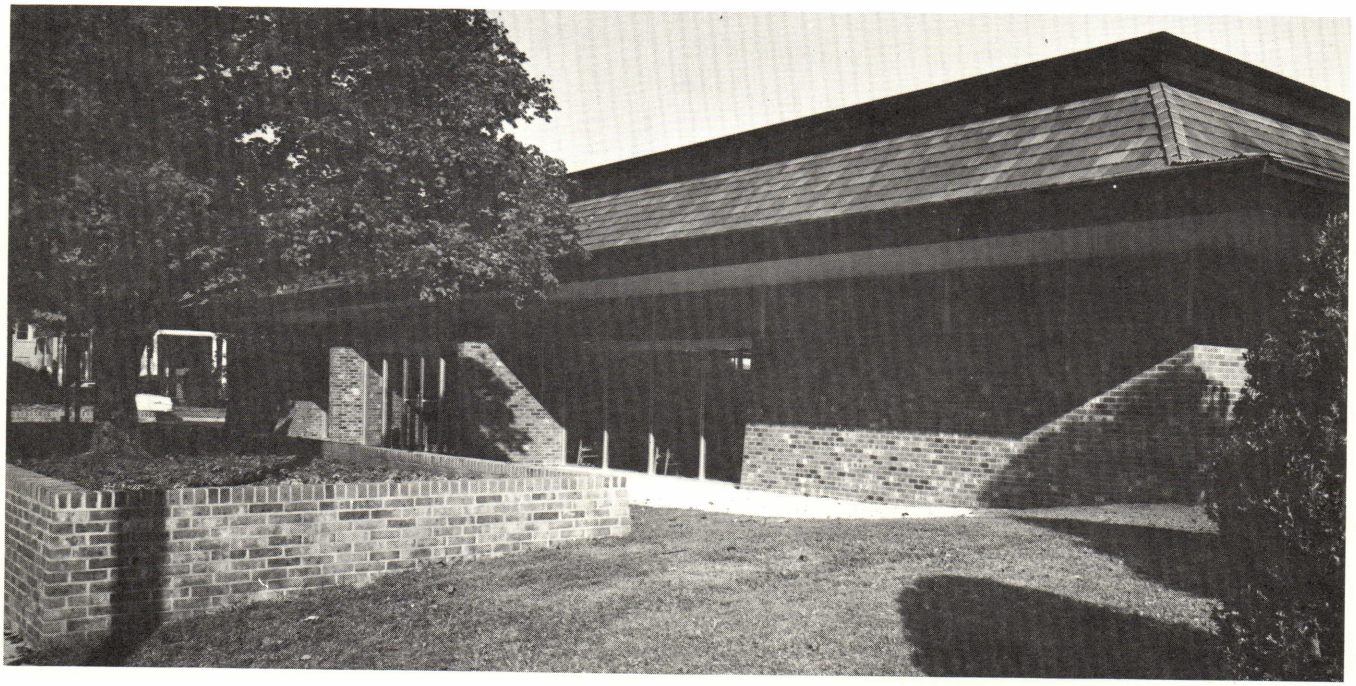
general contractor:
C. H. Wood, Inc.
asheboro

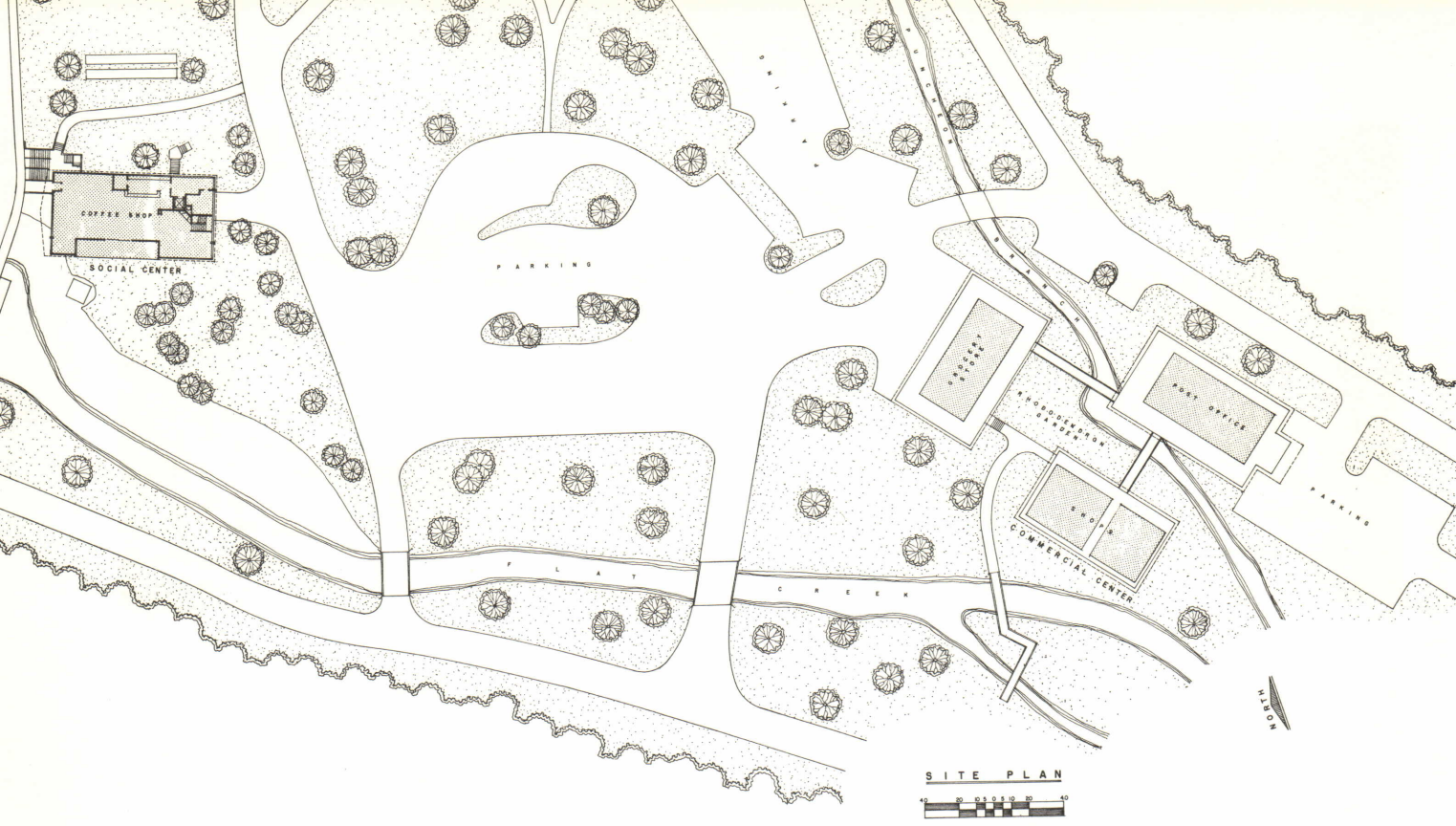
The Asheboro Public Library is located on a corner lot two blocks from the center of the business community in a residential neighborhood of finished homes which is under pressure of commercial interests. Its accessibility and the availability of adequate off-site parking made the site desirable, although it is of limited size. The architects desired to retain the residential character of the neighborhood and to discourage further commercialization.

The site was left in its original condition in as much as possible. Although a portion of the land was cut down to provide a level entrance, all trees were saved. Those on one street were preserved by providing a retaining wall, through which an entry is cut. These units have acted as sound buffers, eliminating auto noises emanating from the street.

The building serves not only as a public library for the town but as headquarters of the county library system, which consists of five additional branch libraries and a bookmobile service. As the building program developed, the librarian and architects decided that future growth of the library system would be in the form of additional branches and in administrative personnel. This indicated that the public areas of the building would be adequate for the life of the building, whereas the administrative area would need space to expand and flexibility to adjust to changing conditions.

The needed flexibility was a governing factor in the design. The roof structure consists of 12 trusses which span approximately fifty-five feet each between columns. The depth of the trusses is utilized to provide space for all electrical and mechanical service. The columns, of reinforced concrete, are cruciform in shape and take all of the lateral stresses. The ceiling in the stack area on the North side of the building is omitted to provide for two levels of stacks as the collection increases. Exterior walls are of face brick inside and out, and are of cavity construction. The entire perimeter is banded with a glass ribbon which permits light to enter above eye level, thus reducing glare. A seven foot overhang eliminates all direct sunshine. The ceiling of the reading room is penetrated by two large (22'0" x 22'0") and six smaller (10 x 10) coffers which are capped with skylights. Each of these coffers has heating supplies and fluorescent lights concealed therein. In addition to providing a uniform light level, these coffers give a feeling of space to the reading room.





A COMMERCIAL & SOCIAL COMPLEX FOR A PRESBYTERIAN CONFERENCE CENTER

montreat

owner:
The Mountain Retreat Association
montreat

architect:
SIX ASSOCIATES, INC.
Architects & Engineers
asheville

general contractor:
Commercial Center — Barger Construction Co.
mooresville

Social Center — Merchant Construction Co.
asheville

Photographs by Edward L. DuPuy

Owner's requirements were to provide a service group consisting of post office, food shop, laundry, dry cleaner, barber and beauty shops, etc., necessary parking, and a social pavilion with snack shop and book store with casual meeting places for persons using the church conference facilities and living at conference lodgings.

The work was to be done with the minimum budget consistent with making the most of the unusual qualities of the site. Simplicity was to be sought for and ostentation avoided.

The site is unique in that it lies immediately below a small artificial lake in a narrow mountain valley heavily wooded and drained by two bold mountain streams.

The problem was to integrate buildings and parking areas with streams and natural growth so as to preserve the unspoiled quality of the creek bottom site to as great an extent as possible. Parking areas are highly irregular and at many levels in order to save trees. Buildings are connected by bridges across streams and remain in close contact with the already present rhododendron and hemlock.

The snack shop and book store part of the complex is on the path from lodgings to conference buildings and so designed that persons walking in the area see through or under it to the water running over the spillway of the dam.

Thus the area is always filled with the sight and sound of running water.

Materials, insofar as possible, are those native to the area. The one-story buildings have superstructures almost entirely of wood with natural or creosote stain finish. In some cases end walls have been made of field stone. These superstructures stand on platforms of concrete.

The higher building has a welded steel frame and concrete floor systems. It shows in general wood, portland cement stucco and glass exteriors.

Roofs are strip shingles or slag-surfaced membrane.

Exterior floors are concrete. Interior floors are composition tile.

NCAIA AWARD OF MERIT

1965

DESIGN AWARDS OF AIA ARE 'OSCARS' FOR ARCHITECTS

Architecture has its own equivalents of the Oscars and Emmies. They are the design awards given annually by The American Institute of Architects.

On a national basis, each year a jury of prominent practitioners chooses the year's best buildings from hundreds of entries submitted by architects throughout the nation. Sometimes it selects as few as half a dozen for Honor Awards and Awards of Merit, and sometimes more than twenty.

On the local level, the Jury for the 1965 Honor Awards Program selected nine entries for Awards of Merit at the NCAIA Winter Meeting in Durham, complimenting the North Carolina Architects on the professional quality of their work. There were thirty-nine entries on approximately sixty-two panels.

These are some of the basic criteria by which a building's worth as architecture is measured:

1. Function—This simply means the way the building does its job, the way it fits the uses for which it was built in the first place. If a building does not function properly, it cannot be considered a great work of architecture, no matter how beautiful it may be.

2. Suitability to its surroundings—The jury want to know not merely how the building looks as an isolated object, but how well it blends into its street and neighborhood, how gracefully it relates to other buildings and open spaces nearby.

3. Suitability to its site—This is the way the building respects and makes use of the natural characteristics of the land on which it rises.

4. Form—Basically, this means the shape which the building takes, but it is a term which has many implications.

One key aspect of a building's form is its massing, the way one wing is played off against another, for example. Another is its proportions, the way each element relates in size and shape to others. And finally there is scale, the way the building and its part relate in size to the people who will use it, to the activities for which it is intended, and again, to other buildings or features of the landscape nearby.

5. Surface—Considerations here are the uses of materials, of color, and of texture. An important factor, and one which has a great impact on the building's form, is the way the architect makes use of the interplay of light and shadow.

6. Structural logic—The jury will favor the building whose appearance speaks clearly and logically of the structure which supports it.

7. Space—This, rather than steel or concrete, is the basic raw material of architecture, for building is basically the process of enclosing and controlling space. How spaces are defined and related to each other affects both function and aesthetics.

8. Environmental—When the term is applied to a single building, it means the way the space is controlled to accommodate whatever goes on inside. It has to do with acoustics; with temperature, humidity, and the flow of air; and with the use of natural and artifical light.

she'll catch this one!

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a.i.a. file: 4-a

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Clip along dotted line

In the preliminary design of multistory concrete buildings it is helpful if column size can be quickly approximated for a specific column spacing.

This can be accomplished by use of the formula and the chart shown below. Both are based on the Working Stress Design method (ACI 318-63). In structures such as 575 Technology Square, where wind load is resisted by shear walls, only the axial load of columns need be considered.

Now coming into wider use is another design method the architect may want to consider. Known as Ultimate Strength Design, it assures the most efficient column size. This approach is not only more consistent with structural behavior, but provides a more uniform factor of safety throughout the building.

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PORTLAND CEMENT ASSOCIATION

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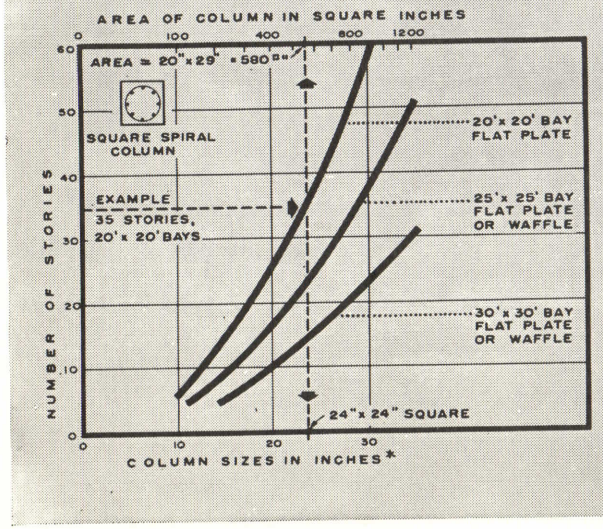
An organization to improve and extend the uses of concrete

Office-Research Center, 575 Technology Square, Boston, Mass. Owners: Massachusetts Institute of Technology and Cabot, Cabot & Forbes Co., Boston, Mass.



FORMULA:

The area of any column in square inches for any story is:

$$A = \frac{N\,(W_D + \tfrac{1}{2}\,W_L)\,B}{k}$$

A = column area in square inches

N = number of stories above

$W_D + W_L$ = dead and live loads (psf)

B = bay area (sq. ft.)

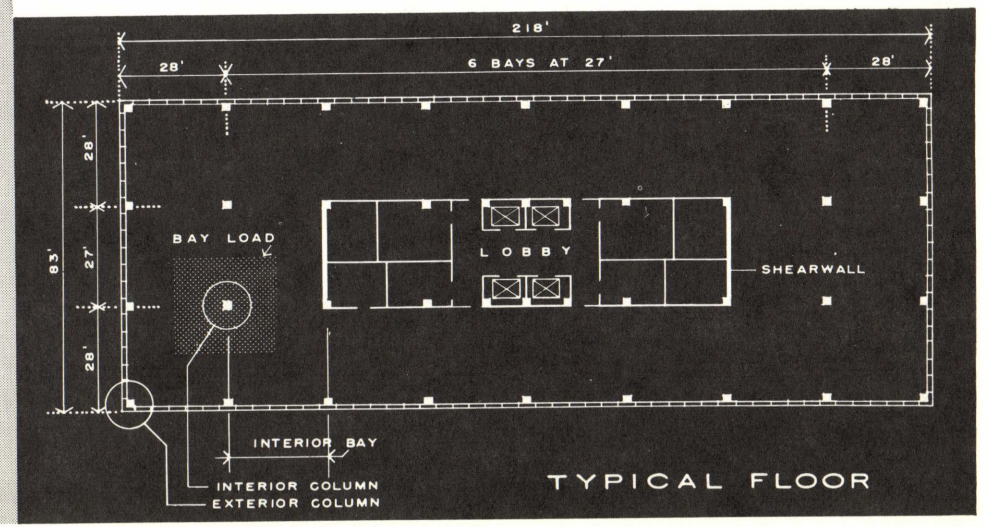
For 8% reinforcement + f'_c = 5,000 psi:

k = 3,650 for f_y = 75,000 psi.

k = 3,170 for f_y = 60,000 psi.

NOTE: The above equation and the graph are based on Working Stress Design (ACI 318-63)

*Columns are square with 8% reinforcement, f'_c = 5,000 psi, f_y = 75,000 psi and moment is negligible. In addition to the dead load of the structure, graph takes into account 35 psf for partitions, mechanical and ceiling. Assumed live load is 60 psf.



TWO NCAIA MEMBERS WIN NATIONAL AWARDS

Charles M. Sappenfield, AIA, of Asheville was awarded a First Honorable Mention for the architectural design of the Hyman Dave residence in Asheville, and Charles H. Kahn, AIA, of Raleigh received a First Honorable Mention for the engineering of the same residence.

The awards were made by the "Design in Steel Awards Program" sponsored by the American Iron and Steel Institute. Certificates were presented to the winners at a reception and dinner at the Waldorf Astoria Hotel, New York, on February 4th.

There were approximately 800 submissions in eight different categories in the competition, with 87 submissions being received in the residence category. The Jury was composed of Waldo G. Bowman, President of the American Society of Civil Engineers; J. Roy Carroll, AIA, past President of The American Institute of Architects; Robert L. Durham, FAIA, Director of The American Institute of Architects; Jon W. Hauser, President of the Industrial Designers Institute; Henry L. Kamphoefner, FAIA, President of the Association of Collegiate Schools of Architecture; William C. Renwick, President of the American Society of Industrial Designers; Ronald B. Smith, past President of the American Society of Mechanical Engineers; Kurt F. Wendt, President of the American Society of Engineering Education; and Edward J. Zagorski, President of the Industrial Design Education Association.

PROGRAMMING AND PLANNING HOSPITAL FACILITIES

A Workshop for Architects, Hospital Administrators and Trustees

A workshop for architects, hospital administrators, and trustees on "Programming and Planning Hospital Facilities" will be held on May 7 and 8, 1965 at Chapel Hill, North Carolina. This workshop will explore problems confronting the architect, the hospital administrator and community leaders in the planning of physical facilities for health care.

The Medical Care Commission's "Procedure for Submitting Long-Range Building Development Plans" will be explained and discussed. A session offering some suggestions and guidelines on how to accomplish long-range planning will also be included in the program.

The workshop is jointly sponsored by the N. C. Chapter A.I.A. and the Department of Hospital Administration, School of Medicine, UNC-CH, in cooperation with the N. C. Medical Care Commission, N. C. Hospital Association, The Duke Endowment, and the School of Design, NCS, UNC-R.

OHIO STUDENT WINS REYNOLDS PRIZE

Douglas F. Trees, a 24-year-old-student at Ohio State University, was announced as winner of the 1965 fifth annual Reynolds Aluminum Prize for Architectural Students.

His design of a botanical display building, an "imaginative and sculpturesque" structure of aluminum and transparent plastic, brings a $5,000 prize to be divided equally between the winning student and his school.

Selection of the Columbus, Ohio, collegian's design from entries submitted by 29 architectural schools over the nation was announced by The American Institute of Architects, which administers the program. Each of the entries had won a competition within its own school for a cash prize of $200.

The national prize will be presented on June 16 at the AIA annual convention in the Nation's Capital. The competition for the "best original design of a building component in aluminum" is sponsored by Reynolds Metals Company.

A fifth-year student, Mr. Trees lives in Columbus with his wife and their 2½-year-old daughter.

The Prize jury also selected for Honorable Mention the design entries of three other students as follows:

Richard L. Sullivan, University of California, for his design of a "Sheet Metal Space Frame."

Lowell D. Croskey, Kent State University, for design of "Circular Components for an Aluminum Space Frame."

R. Ross Ellena, California State Polytechnic College for design of a "Tubular Aluminum Flex-Frame."

The Jury also designated for Special Commendation a "Spiral Staircase" by Robert Luttermoser, Lawrence Institute of Technology.

The AIA jury judging the entries consisted of chairman Sidney W. Little, FAIA, dean of the College of Architecture, University of Arizona; William Dow Gumerson, AIA, past president of the Oklahoma Chapter of The American Institute of Architects; and Norman C. Fletcher, FAIA, of Cambridge, Mass.

The AIA stipulates that the national winner must use his prize for further education. Mr. Trees plans to study in Denmark for about a year after his graduation from Ohio State University this June, and then to do graduate work at some American architectural college.

Mr. Trees' design was designated "A Post-Tensioned Structural System for a Horticultural Society Building." He described it as a "stage for flower shows and other botanical displays."

"The attempt is to create sculpture and dramatic lighting with the necessarily transparent enclosure and the supporting structure, effecting an exciting environment for botanical displays," the entry stated.

CALENDAR OF EVENTS

April 1: Raleigh Council of Architects, YMCA, 12:15-1:30, Ralph B. Reeves, Jr., AIA, President

April 7: Charlotte Section, N. C. Chapter AIA, Stork Restaurant No. 2, John C. Higgins, Jr., AIA, President

April 7: Durham Council of Architects, Jack Tar Hotel, James A. Ward, President

April 8: Greensboro Registered Architects, Ivanhoe's Restaurant, Walter E. Blue, Jr., AIA, President

April 12: Winston-Salem Council of Architects, Reynolds Building Restaurant, J. Clyde Williams, President

April 9: Eastern Carolina Council of Architects, Rocky Mount, Harry K. McGee, AIA, President

April 5-9: School of Design Lecture, Alice Mary Hilton, President of Cybercultural Research Institute

May 7,8: Hospital Programming and Planning Conference, Chapel Hill

June 13-19: Pan American Congress of Architects, Sheraton Park Hotel, Washington, D. C.

July 1-3: NCAIA Summer Meeting, Blockade Runner Hotel, Wrightville Beach

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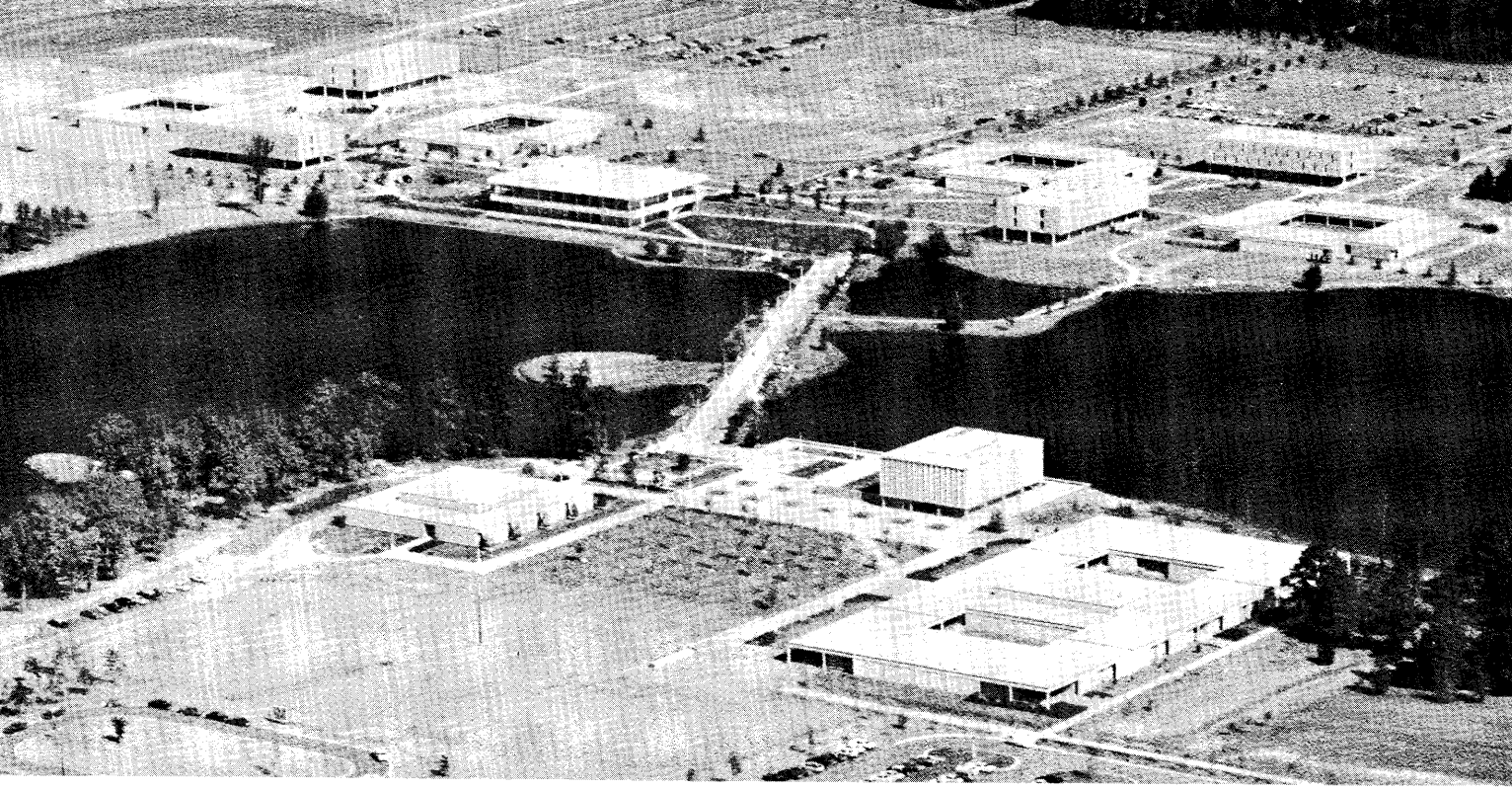
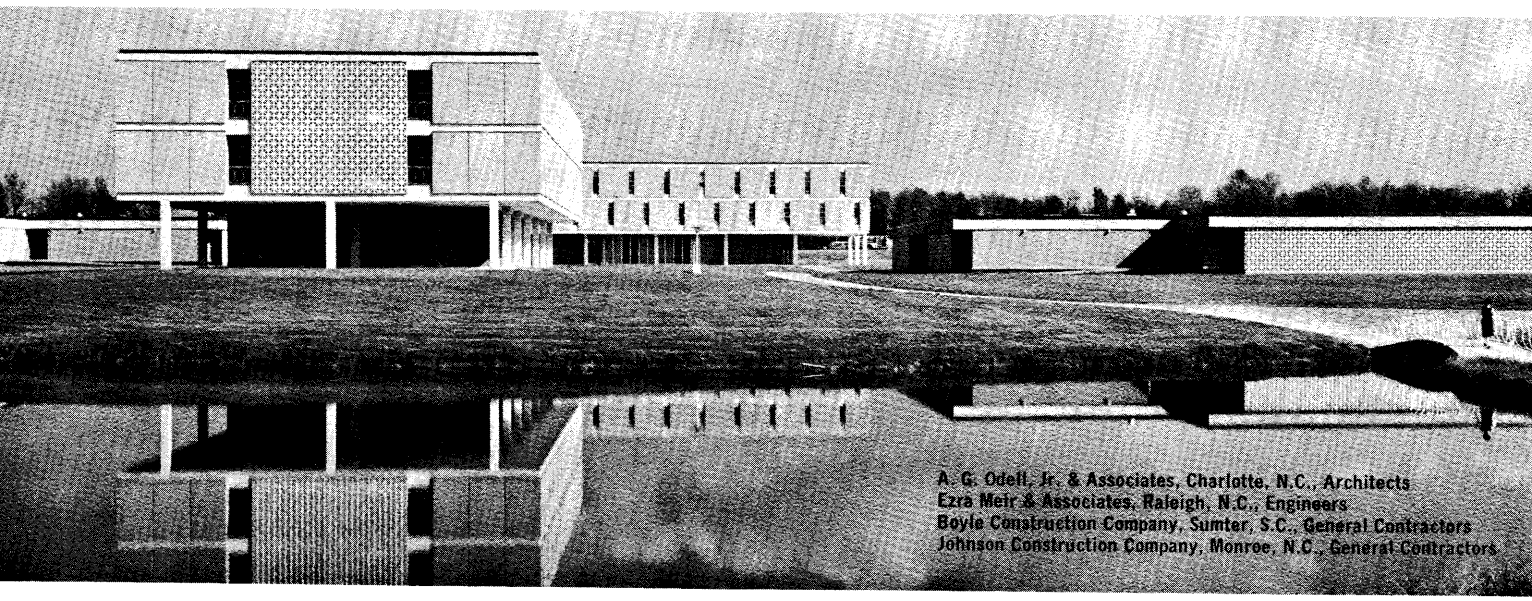
NCAIA SUMMER MEETING

BLOCKADE RUNNER HOTEL

WRIGHTSVILLE BEACH — JULY 1, 2, 3, 1965





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