The structural steel fabricated by Peden for the specifically designed control tower at Raleigh-Durham Airport is still another example of our depth of experience in many fields of construction.

Keeping pace with the modern concept of accelerated growth and progress in industry, transportation, education, medicine, recreation, and the arts — time and time again Peden has proved its ability to supply the structural steel needs for a vast array of diversified construction — on schedule and within budget figures.

Peden Steel Company's continued rapid growth as an important and dependable partner to construction is the result of a willingness and ability to provide the best combination of complete steel service and supply available anywhere in the Southeastern United States.

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PEDEN STEEL COMPANY
Raleigh, N. C.
Few flooring materials have the history of terrazzo. Few can combine the beauty and longevity of this versatile material. Floors "designed for kings" in Rome and the original, beautiful floors laid by Venetian workers centuries ago still serve as dramatic tests of time and use. Their performance offers today's architects, and today's owners, unparalleled proof of ultimate economy.

**TYPES OF TERRAZZO TOPPINGS**

**Standard**: Minimum thickness (finished) of 3/8 inch, composed of marble chip sizes #1 and #2.

**Venetian**: Minimum thickness of one (1) inch, composed of marble chip sizes #1 through #8 (as desired). Uses minimum 1 1/2-inch-deep divider strips.

**Rustic**: (Washed Terrazzo) Same as any terrazzo topping except that after the rolling operation, it is broom finished or hosed with water. After curing, treat with a solution of muriatic acid and apply a penetrating seal.

**Berliner**: (Palladiana) Minimum thickness of one (1) inch, composed of broken marble in various sizes from 4 to 140 square inches, with a "Standard Terrazzo" joint, varying in width from 1/2 inch to 6 inches.

**Conductive**: Same as "Standard" except that acetylene black is added to the topping and underbed and mixed in strict accordance with special specification for Conductive Terrazzo. Meets all National Fire Prevention Assn. requirements.

**TERRAZZO COMPONENTS**

**Marble**: Shall be standard quarry products.

**Marble chip sizes**: Marble chips are graded by number according to size and in conformity with industry standards adopted by marble producers, as follows:

<table>
<thead>
<tr>
<th>Chip Size Number</th>
<th>Passes Through Screen Inches</th>
<th>Retained on Screen Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>%</td>
<td>1/6</td>
</tr>
<tr>
<td>1</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>2</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>3</td>
<td>%</td>
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<td>6</td>
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<td>%</td>
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<tr>
<td>7</td>
<td>1%</td>
<td>%</td>
</tr>
<tr>
<td>8</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

For Venetian Terrazzo the larger chips should be used in the following groups:

- #4 plus #5
- #6, #7 plus #8

Chips should be crushed uniformly so that all dimensions are reasonably close to the limits of the recommended sizes. Flats or flaky chips should be held to a minimum.

**Portland cement**: White portland cement and gray portland cement shall conform to "Specifications for Portland Cement" (ASTM C 150-63) or "Specifications for Air-Entraining Portland Cement" (ASTM C 175) or "Cement, Portland" (FS SS C 192g).

*In the floor of the New York State Pavilion at the New York World's Fair, multi-colored terrazzo ingeniously traced the outlines of the major highways across the state. Architect: Philip Johnson Associates, New York. Terrazzo Contractor: Port Morris Tile & Terrazzo Corp., N.Y.*

Portland Cement Association
1508 Willow Lawn Drive, Richmond, Va. 23220
An organization of cement manufacturers to improve and extend the uses of portland cement and concrete

TS-8958—1 page, 7" x 10"—Trade Papers, 1966—9754

Structures (Misc.)
Thermal resistance calculations are analogous to electrical problems in that under a constant temperature differential (voltage drop) a higher resistance will reduce the heat flow (current).

This heat flow (summer and winter) must be paid for in higher fuel costs and in larger heating and air-conditioning mechanical equipment.

The increased insulation provided by Solite masonry units substantially reduces the cost of heating and air-conditioning.

A secondary benefit of using Solite masonry is the warmer inside wall temperatures that protect against cold, sweating walls. Condensation starts when inside wall temperature drops below the dew point of the interior air.
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charlotte, north carolina

Architect's Statement:

The ABC Board desired a flexible, expandible building to house a multiplicity of functions: General Offices, Communications Center, Interrogation Headquarters, Bookkeeping Offices, Warehousing and Transfer Space, and also vehicle service facilities, centrally located in the Brooklyn Urban Renewal Area of Downtown Charlotte. This was the initial building in the Urban Renewal Project, and it was early agreed that prime consideration be given to its aesthetic appeal to set the pace for further development. This consideration and the desire for future expansion led to the choice of structural system and exterior treatment.

The building was delicately sited on the lot to enable the office and warehouse portions to share a common roof line, to provide expansion capability on the site, and also to control the various traffic patterns inherent in its operation.

The floor is concrete slab on grade, with walls of precast concrete panels backed-up by concrete block bearing walls in the offices. The panels are left exposed inside

owner:
Mecklenburg County ABC Board
architect:
J. N. PEASE ASSOCIATES
Architects-Engineers
charlotte

general contractor:
T. R. Burroughs Construction Company
charlotte
photographs:
Gordon H. Schenck, Jr.
charlotte
the Warehouse Area, where the precast concrete double tee roof bears on a precast concrete girder and column system.

Interior finishes in the offices are primarily vinyl fabric on plaster, with exterior masonry walls left exposed and painted. A light well at the center of the offices exposes most principal offices to a pleasant, controlled environment.
State Parks Look to the Future

With the arrival of spring, outdoor recreation acquires a prominence exemplified by the increase of campers, trailers and boats encountered on the highways. North Carolinians are fortunate to have an array of state parks easily accessible from any location. Under the state system, fourteen parks offer every type of outdoor recreation to the citizens of this State.

1915 marked the beginning of the park system with the procurement of Mount Mitchell State Park, comprising some 1300 acres of land at one of the highest elevations in the state. Since that time, thirteen more parks have been added, scattered from the mountains to the coast.

The mere acquisition of raw land does not constitute an attractive park. Development and maintenance must be planned. Essentially in this program, adequate shelter takes top priority. In planning, all aspects of the property and the use which will be made of the land must first be considered.

In the early days of park planning, a picnic structure to be built of native materials—a plan adaptable to any locality—was designed. It called for hand-hewn beams and hand-cut shingles with a large open fireplace usually to be constructed of rock excavated in the area. Today, because pre-fabricated materials are more economical, these picturesque picnic shelters are likely to become obsolete.

In the 1930's the Federal Government, cooperating with the State and utilizing Civilian Conservation Corps labor, erected a number of park buildings. Most notable is the mammoth stone lodge at Hanging Rock.

Typical picnic shelter using native rock and hand-hewn shingles
State Park, Surry County. Structures of the depression era were designed mainly by architectural students, employed part-time by the State. This arrangement not only provided semi-professional design assistance, but enabled some talented pupils to complete their schooling.

A variety of structures were originally designed to be adapted to the needs of the individual park. In recent years, local architectural firms have been commissioned to design imaginative buildings for a specific use and site.

Not only do the State parks provide a variety of recreational facilities, they have been instrumental also in preservation and restoration. Fort Macon, at the entrance to the Morehead City-Beaufort harbor, considered a military architectural gem, is now maintained by the Park system as a museum. Robert E. Lee, as a young U. S. Army engineering officer, was involved in the design of this famous garrison. “Somerset,” restored residence at Pettigrew Park, Creswell, is a fine example of an ante-bellum double-galleried coastal plantation home. Even a simple cottage, such as the Dr. Kron residence at Morrow Mountain State Park, near Albemarle, has been interestingly restored to house an information center.

The North Carolina Parks Department is currently embarked on a long-range program of expansion and development. A number of architectural firms have plans on their drawing boards for attractive park shelters to adequately meet the needs of an exploding urban population.
1. Josiah Collins Residence, ca. 1830, at Pettigrew State Park

2. Dr. Kron Residence at Morrow Mountain State Park has been restored

3. Fort Macon, preserved by the parks department, houses an excellent museum
This building has been designed in three units: Administration, Museum and Auditorium. The Museum will house permanent displays in self-lighted panel display cases. There is also space allotted for a diorama exhibit. The Auditorium Unit seats approximately one hundred and has a rear projection screen to be used for slides and movie shorts. The floor of the Auditorium is flat with non-fixed seats so that it can serve a multiple of uses. The exterior of the buildings will be rough sawn tongue and groove vertical pine boards.

The basic function of the Nature Museum is to house interpretive facilities and exhibits. The interpretive program is to explain the Sandhills area from the standpoint of human history and geographical development.
DURHAM ACADEMY
durham, north carolina

architect:
JOHN D. LATIMER & ASSOCIATES
durham

general contractor:
George W. Kane
durham

landscape architect:
Richard C. Bell & Associates
raleigh

photographs:
Gordon H. Schenck, Jr.
charlotte

Architect's Statement:
This school, located on the outer fringe of Durham toward Chapel Hill, gathers its students primarily from these cities. Bounded by private housing, forests, and an Architect's office, the undeveloped site was composed of fields and pine forests. To retain the natural flavor, we carefully considered placement of buildings, playing fields, and vehicular traffic. The school is organized into 3 distinct groups academically: Pre-school, Lower School, Upper School. This indicated a natural division of buildings architecturally. The small gym also serves as a lunch and assembly room and is oriented toward playing fields and public access. A very limited budget resulted in exposed concrete floors, exposed electrical work, untreated wood ceilings, elimination of conventional storm drainage systems, etc. The buildings evolved from our desire to create familiar forms, economical structural systems and appropriate
scale. The laminated structural system and trim is stained the color of pine tree bark, grooved plywood is stained grey and brick is grey with dark mortar.

The structural system is a combination of laminated wood columns, beams, and load bearing concrete block walls with concrete floor slabs on grade. Interior wall finishes are concrete masonry units and gypsum wall board. Roof deck is tongue and groove pine, exposed in all areas. The gym is framed in steel because it was more economical than wood in the longer span with no interior supports. Exterior materials are brick, grooved plywood, and glass. The heating system is electric, utilizing individual room units with provision for addition of cooling chassis for future air conditioning.
A NEW EXPERIMENTAL HOUSING PROGRAM FOR NORTH CAROLINA

A Part of the State's Total Development

by E. L. Rankin, Jr.
Reprinted from Popular Government, March 1967

(Editor's Note: The author is Director of Administration of the State of North Carolina. This article is based on his remarks at a conference on the Federal Housing Administration's Below Market Interest Rate Program at the Sir Walter Hotel in Raleigh.)

These are unusual times we are living in, and we often cannot meet the demand of these times in the usual way. With the convening of this conference in collaboration with The North Carolina Fund and Urban America, our State Government for the first time in its history acknowledges its intention to work toward the goal of good housing for all North Carolinians. In taking on this task, our chief interest, of course, is in a decent and healthful living environment for our people.

At the same time, we are concerned with the economic development of the State—in particular here, with the local housing industry, home builders, building materials suppliers, mortgage lenders, architects, and all the others whose work is to produce and market homes for the residents of this State.

What is the background of this new State Government activity, and what is it that we hope to do?

Several years ago, the Institute of Government issued a report on housing in North Carolina which concluded that our State faces a housing problem of major proportions. Finding that four of every ten North Carolinians are poorly housed according to 20th Century standards, the report pointed up the fact that our total housing resource is markedly poorer in quality, quantity and variety than that of the Nation as a whole and the South Atlantic Region of which we are a part. The report further found that, for whatever reasons, North Carolinians are not making full use of the many and various Federal housing aids, designed to stimulate the production of housing for low and lower-middle income families and for the needs of such special groups as the elderly.

Federal Incentives to Improving Housing

Confronted with these facts, this Administration made application to the Federal Government for a grant to assist State Government in getting the word around about available Federal aids and incentive programs and in providing statewide advice and assistance to individuals and groups, public and private, who are willing to undertake the construction of new housing (or the renovation of existing housing) for families and individuals of limited means. Recognizing the need for such action, The North Carolina Fund joined with the State in putting up the required local share to match the Federal grant awarded to us.

As a convenient means of quickly building the needed awareness and understanding of existing Federal incentives and to make economical use of the best talent to explain these programs, we have decided on a series of statewide and regional conferences devoted to special programs designed to accomplish a particular housing goal.

This is the first conference of the series, and, as you know, we will be devoting our attention today to the Federal Housing Administration's below market interest rate program (in Federales, the 221-d-3 program). Since you will be hearing about this from the experts for the rest of the day, I will only point out that this program will not compete with the normal housing market. Future conferences will cover special housing programs for the elderly, housing aids for people who live in rural areas, and new approaches to public housing. The public housing conference will also explore the intricacies of the new rent-supplement program.

The State's Activity in Housing

While this conference marks the ceremonial beginning of your State Government’s new and experimental housing program, we have actually been at work on this for a number of months, as many of you know. In February of last year we appointed Mr. Luther C. Hodges (the nephew of our esteemed former
Governor) as the State's housing specialist. With other members of the staff of the Department of Administration's State Planning Task Force, Mr. Hodges has been traveling about the State talking with public officials and other concerned people about the housing problems in our localities. I know that many of you here today have met with him when he visited your communities. Mr. Hodges is responsible for the arrangement of these conferences and for the continuing advisory service the State hopes to provide to those who decide to take up the challenge of building and rehabilitating to meet the housing needs of our citizens of limited means.

Following Mr. Hodges' appointment, the Governor in April named a 39-man advisory committee on low-income housing, with Ed Holmes of Pittsboro as its chairman. This committee consists of builders, realtors, mortgage lenders, and others with a record of interest and concern with housing, and is well represented here today.

The job that we have set ourselves has four major segments:

1. To educate all of the State as to what housing aids are available;

2. To communicate to the housing industry the need of this large, moderately profitable, unserved market among low and lower-middle income families and special-need groups;

3. To communicate with and encourage civic and community leaders, and to stimulate action as well as talk; and

4. To advise and assist those who take up our challenge.

You may be interested to learn that we are the first State in the Nation to launch a program of this type.

I should point out, however, that North Carolina is not alone in its concern for housing. Fourteen other States and Puerto Rico provide direct financial aid in the form of loans or mortgage insurance for sale or rental housing. In years to come, North Carolina may decide to undertake similar programs or to chart some new course that may be appropriate at the time. For the present, however, we see a more limited role—that of doing our best to insure that what is presently available is used as fully and effectively as possible, and to use the traditional methods of housing construction known to us all in some new ways.

In tackling North Carolina's housing problem, the State is being joined by The North Carolina Fund and, to a limited extent, by Urban America, which with the Fund, is joining in the sponsorship of today's meeting.

In the near future, we hope to engage the services of an expert in the field of housing for the elderly. I would also like to call to your attention the fact that our next meetings will focus on housing for the elderly. We expect to join with the Governor's Coordinating Council on Aging in conducting these sessions in the near future.
ARCHITECTS’ NEWS

BRUCE ROBERTSON ASSOCIATES, Architects, announce the opening of their offices at 600 Home Federal Building, Charlotte. Mr. Robertson is a member of the North Carolina Chapter, AIA.

JACK T. GRAY, Architect, formerly of Holroyd & Gray Architects, announces the opening of an office for the practice of architecture at 1366 East Morehead Street, Charlotte. Mr. Gray is a member of the North Carolina Chapter, AIA.

LAWRENCE W. COBB, A.I.A. announces the removal of his office from 3229 South Boulevard to 1909 Randolph Road, Charlotte, Telephone 333-6838.

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APRIL 1987
CANADIAN PRODUCTS ON DISPLAY

Canada is participating in the exhibit section of the annual AIA Convention at the New York Hilton Hotel, May 14-18. Across the street from convention headquarters the towering CBS Building displays a prime Canadian product. Its architect, the late Eero Saarinen, used Canadian black granite to face this elegant structure.

Features of the Canadian exhibit are a new textured brick and a Canadian stainless steel product being introduced to the United States market for the first time. Special lighting includes concealed grid systems and custom-designed fixtures including crystal chandeliers. Ceramic floor and wall tile has been included along with decorative aluminum screens. A new line of carpeting is being used in the Canadian exhibit as well as custom-designed Canadian furniture in the reception area.

A unique Canadian building method on display is a patented triodetic structural system by which elements of almost any kind can be connected with greater efficiency than is obtained by bolting, welding or riveting.
FUTURE OF URBAN DEVELOPMENT DISCUSSED AT CONFERENCE

The Institute of Government in Chapel Hill hosted a special conference on The Future of Urban Development in North Carolina on April 6-8. Sponsors of the seminar were the N. C. Planning Association, the N. C. City and County Managers' Association, the N. C. Section, American Institute of Planners and the Institute of Government. The many economic problems which develop with growth of a more urban population were discussed by nationally recognized economists from the federal government and local authorities in this area. Problems posed at a national level were analyzed and brought into focus by regional participants in the program.

Governor Dan K. Moore opened the conference on Thursday morning with the keynote address. He stressed the immediate needs of the state and outlined current state programs directed at those needs and other programs which are being developed. Mr. William Slayton, Executive Vice President of Urban America, addressed the group on “The Future of Urban America.” The final address on Saturday morning, delivered by R. Mayne Albright, attorney for the North Carolina Chapter AIA, summarized the conference and offered his own views as to special public needs which lie ahead.
CALENDAR OF EVENTS

April 21: East Carolina Council of Architects, Smithfield, N. C. Harry C. McGee, AIA, Host; Byland P. Edwards, AIA, President

April 27: Piedmont Section, NCAIA, Voyager Inn, Greensboro, William F. Freeman, AIA, President

May 2: Durham Council of Architects, Jack Tar Hotel, 12:30 PM, Max Isley, AIA, President

May 3: Charlotte Section, N. C. Chapter AIA, Charlotte Town Mall Community Hall, 12:30 PM, Paul Braswell, AIA, President

May 4: Raleigh Council of Architects, YMCA, Hillsborough St., 12:15 PM, William C. Correll, AIA, President

May 14-18: National AIA Convention, New York Hilton Hotel, New York City

May 15: Producers’ Council Informational Meeting, Wagoner Hall, Charlotte

July 20-23: NCAIA Summer Meeting, Blockade Runner Hotel, Wrightsville Beach

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