

EDITOR

WALTER F. WAGNER, JR., AIA

MANAGING EDITOR

HERBERT L. SMITH, JR., AIA

SENIOR EDITORS

ROBERT E. FISCHER

MILDRED F. SCHMERTZ, FAIA

ASSOCIATE EDITORS

GERALD ALLEN

GRACE M. ANDERSON

BARCLAY F. GORDON

CHARLES E. HAMLIN

CHARLES K. HOYT, AIA

WILLIAM MARLIN

ASSISTANT EDITOR

JANET NAIRN

PRODUCTION EDITOR

ANNETTE K. NETBURN

DESIGN

ALEX H. STILLANO, Director

ALBERTO BUCCHIANERI, Associate

ANNA-MARIA EGGER, Assistant

MURIEL CUTTRELL, Illustration

J. DYCK FLEDDERUS, Illustration

JAN WHITE, Consultant

EDITORIAL CONSULTANTS

EDWARD LARRABEE BARNES, FAIA

JONATHAN BARNETT, AIA, Urban design

GEORGE A. CHRISTIE, JR., Economics

ERNEST MICKEL, Hon. AIA, Washington

PAUL RUDOLPH, FAIA

Foreign architecture:

L'Architecture d'Aujourd'hui, Paris

McGRAW-HILL WORLD NEWS

RALPH R. SCHULZ, Director

9 domestic and 10

international news bureaus:

Bonn, Brussels, Buenos Aires,

London, Milan, Moscow, Paris,

Singapore, Tokyo, Toronto.

SALES MANAGER

LOUIS F. KUTSCHER

ASSISTANT BUSINESS MANAGER

JOSEPH R. WUNK

ASSISTANT TO THE PUBLISHER

ELIZABETH HAYMAN

PUBLISHER

BLAKE HUGHES

Of particular assistance to the editor in the preparation of this issue were:

Robert E. Fischer, editor-in-charge

Grace M. Anderson, associate editor

Annette K. Netburn, production

Donna Protas, secretary

Jan White, art direction

Fay Eng, art production

Muriel Cuttrell, illustration

Joseph R. Wunk, production

ENGINEERING FOR ARCHITECTURE



Cover design: Jan V. White

THE RECORD REPORTS

7 Editorial

Architecture, engineering, and education: the newest idea is going back to some old ideas

33 News reports

ARCHITECTURAL BUSINESS

47 Specification writing: a new CSI program provides a "one-stop" approach to locating references

125 Product reports

127 Office literature

150 Professional services

164 Advertising index

167 Reader service inquiry card

BUILDING TYPES STUDY® 506

61 Engineering for Architecture . . . an introduction

62 Ten examples of effective architect-engineer collaboration

This year's collection focuses on a number of novel techniques for energy savings, while also displaying some spectacular design, and some inventive and neat structural and hvac solutions.

92 Round Table: On cost-effective strategies for saving energy

Clients are more willing for architects and engineers to try new approaches, and to utilize knowledge they've always had.

98 Computer Graphics—An amazing and promising tool for design

Professor Donald Greenberg's work at Cornell demonstrates mind-stretching capabilities.

106 The joys of effective A/E collaboration

Reviewing two books, two engineers explore its meanings.

108 Solar energy: notes from the field

Margaret Gaskie writes how architects are approaching it in their practice.

114 Flexible wiring systems—illustrated

A catalogue of distribution methods for power, light and communications.

ARCHITECTURAL RECORD (Combined with AMERICAN ARCHITECT, ARCHITECTURE and WESTERN ARCHITECT AND ENGINEER)

Mid-August 1977, Vol. 162, No. 3. Title® reg. in U.S. Patent Office, copyright © 1977 by McGraw-Hill, Inc. All rights reserved. Copyright not claimed on front cover and editorial four-color separations. Indexed in Reader's Guide to Periodical Literature, Art Index, Applied Science and Technology Index, Engineering Index, and The Architectural Index. Published monthly except May, August, and October when semi-monthly, by McGraw-Hill, Inc.

Quotations on reprints of articles available. Every possible effort will be made to return material submitted for possible publication (if accompanied by stamped, addressed envelope), but the editors and the corporation will not be responsible for loss or damage.

EXECUTIVE, EDITORIAL, CIRCULATION AND ADVERTISING OFFICES: 1221 Avenue of the Americas, New York, N.Y. 10020. Other Editorial Offices: 425 Battery Street, San Francisco, Cal. 94111.

PUBLICATION OFFICE: 1221 Avenue of the Americas, New York, New York 10020. Second-class postage paid at New York, New York 10001 and at additional mailing offices.

OFFICERS OF McGRAW-HILL PUBLICATIONS COMPANY: Gordon

L. Jones, president; Paul F. McPherson, executive vice president; Gene W. Simpson, group vice president; senior vice presidents: David G. Jensen, manufacturing; Ralph R. Schulz, editorial; vice presidents: James E. Boddorf, planning and development; James E. Hackett, controller; Robert L. Leyburn, circulation; Edward E. Schirmer, sales.

CORPORATION OFFICERS: Harold W. McGraw, president, chief executive officer and chairman of the board; Robert N. Landes, senior vice president and secretary; Ralph J. Webb, treasurer.

SUBSCRIPTIONS: Subscriptions solicited only from architects and engineers. Position, firm connection, and type of firm must be indicated on subscription orders. Please allow 4-12 weeks for shipment. CHANGE OF ADDRESS or subscription service letters should be forwarded to Fulfillment Manager, ARCHITECTURAL RECORD, P.O. Box 430, Hightstown, N.J. 08520. Provide old and new addresses, zip code or postal zone number. If possible, attach issue address label. Annual subscription prices: U.S., U.S. possessions: \$15.00 for architects, engineers and other individuals in the fields served; others \$24.00. Canada: \$17.00 for architects, engineers and other individuals in the fields served; others \$26.00. Other countries: \$30.00 for architects, engineers; others \$40.00. Single copies \$5.00.

GUARANTEE: Publisher agrees to refund that part of subscription price applying to unfilled part of subscription if service is unsatisfactory.

ASSOCIATED SERVICES/McGraw-Hill Information Systems Co.: Sweet's Catalog Files (General Building, Engineering, Industrial Construction and Renovation, Light Residential Construction, Interiors), Dodge Building Cost Services, Dodge Reports and Bulletins, Dodge/SCAN Microfilm Systems, Dodge Management Control Service, Dodge Construction Statistics, Dodge regional construction newspapers (Chicago, Denver, Los Angeles, San Francisco).

THIS ISSUE is published in national and separate editions. Additional pages of separate editions numbered or allowed for as follows: Western Section 32-1 through 32-2. POSTMASTERS PLEASE SEND FORM 3579 to Fulfillment Manager, ARCHITECTURAL RECORD, P.O. Box 430, Hightstown, N.J. 08520.

