48th Annual Convention

American Concrete Institute

Cincinnati, Ohio
Netherland Plaza Hotel
February 26, 27, 28, 1952

—To provide a comradeship in finding the best ways to do concrete work of all kinds and in spreading that knowledge.
BOARD OF DIRECTION

President
HARRY F. THOMSON

Vice-Presidents
A. T. GOLDBECK and HENRY L. KENNEDY

Secretary-Treasurer
HARVEY WHIPPLE†

Directors
A. E. CUMMINGS
HARNOE E. DAVIS
HARRY DELZELL
FRANK KERSEES
G. L. LINDSAY
L. E. MORRIS
N. M. NEWMAH
WALTER H. PRICE
R. W. SPENCER
L. L. TYLER
CHARLES S. WHITNEY
CHARLES E. WUERPEL

Past Presidents
ROBERT F. BLANKS
HERBERT J. GILKEY
FRANK H. JACKSON

TECHNICAL ACTIVITIES COMMITTEE
(In charge of convention program and of technical publications)

DOUGLAS MCNALLY, Chairman
President HARRY F. THOMSON (Ex Officio)

Herbert Insley
Bryant Mather
R. W. Spencer
Myron A. Sawtelle
L. W. Teller
L. L. Tyler
HARVEY WHIPPLE, Secretary

†Address
AMERICAN CONCRETE INSTITUTE
1850 W. McNichols Road, Detroit 10, Michigan

Program Time Table

Sunday, February 24 and Monday, February 25
Meetings of Executive Committee, Technical Activities Committee and Board of Direction

Tuesday, February 26

8:30 a.m.—Technical committees (See p. 10)—Parlors A, B, C, D, E, F, I, L

9:00 a.m.—Registration begins—4th floor foyer

10:30 a.m.—First general session—Bylaws changes—Pre-stressed concrete—Pavilion Caprice

12:00 noon—Institute Officers reception and luncheon for scheduled program participants (by prior invitation)—Parlor II

2:00 p.m.—General convention session—Durability and Curing—Pavilion Caprice

8:00 p.m.—Technical committees (See p. 10)—Parlors A, B, C, D, E, F, I, L

Wednesday, February 27
(Concurrent Sessions will be held morning and afternoon in the Pavilion Caprice and Parlors A-D)

9:00 a.m.—Convention session—Ultimate Load Design—Pavilion Caprice

9:00 a.m.—Convention session—Materials and Properties—Parlors A-D

12:15 a.m.—Annual Awards Luncheon—Hall of Mirrors

2:30 p.m.—Convention session—Design—Pavilion Caprice

2:30 p.m.—Convention session—Construction—Parlors A-D

7:30 p.m.—Technical committees (See p. 11)—Parlors A, B, C, D, E, F, I, L

Thursday, February 28

9:00 a.m.—Annual Research Session—Open meeting of ACI Committee 115, Research—Pavilion Caprice

12:15 p.m.—Harvey Whipple Luncheon—Pavilion Caprice

2:30 p.m.—Final convention session—Panel discussion—Pavilion Caprice
9 a.m.—5 p.m., DAILY
TUESDAY, WEDNESDAY and THURSDAY
FEBRUARY 26, 27, 28, 1952

****

CONVENTION REGISTRATION
In charge of
ETHEL B. WILSON, Assistant Treasurer

Registration fee—$2.00
(All registered nonmember visitors are welcome at general sessions)

Buy your tickets for the Wednesday noon AWARDS LUNCHEON and Thursday noon HARVEY WHIPPLE LUNCHEON at time of registration.

See bulletin board for special notices.

12 noon sharp, Tuesday—Luncheon for all scheduled program participants in the general convention sessions. (By invitation)

****

TECHNICAL COMMITTEE MEETINGS
See p. 10 and bulletin board at registration desk for time and location.

****

NOTES FOR PROGRAM PARTICIPANTS

● Participants in the program should not fail to leave with the stenotype reporter manuscript from which papers or discussions are presented. The ACI Secretary will later provide opportunity for manuscript revision before consideration for JOURNAL publication.

● Upon recognition by the Chairman a discussor will please state his name and convention registration number distinctly and go to a microphone so he may be heard by all. If presented from manuscript, it should be left with the stenotype reporter.

● A "Convention Review" will be published in the News Letter section of the April ACI JOURNAL.

****

10:30 a.m., TUESDAY, FEBRUARY 26

Pavillon Caprice

President HARRY F. THOMSON, Presiding

Opening Remarks

Appointment of tellers to canvass annual election ballots

Bylaws Changes


PRESTRESSED CONCRETE

Relative Economy of Conventional and Prestressed Reinforced Concrete Reservoirs

GEORGE C. ERNST, C. O. BRUNKEN and A. R. RIVELAND
University of Nebraska, Lincoln, Neb.

Field Problems in Constructing a Prestressed Concrete Bridge

CLAIR L. JOHNSON
Johnson andAnderson, Pontiac, Mich.

+ + +

2 p.m., TUESDAY, FEBRUARY 26

Pavillon Caprice

Vice-President A. T. GOLDBECK, Chairman

DURABILITY

General Condition of Concrete Railroad Structures and Research Program on Surface Waterproofers

C. B. PORTER
Chesapeake and Ohio Railway, Richmond, Va.

Presented by E. S. BIRKENWALD
Southern Railway System, Cincinnati, Ohio

Field Studies of Durability of Railroad Concrete

R. W. GILMORE
Baltimore and Ohio Railroad, Cincinnati, Ohio

* 5 *
Concrete Pavements Can be Durable
FRANK H. JACKSON
Bureau of Public Roads, Washington, D. C.

Concrete Can be Durable in Hydraulic Structures
LEWIS H. TUTHILL
Bureau of Reclamation, Denver, Colo.

Durability of Hydraulic Structures
BYRAM W. STEELE
Consulting Engineer, Miami, Fla.

CURING
Round-table discussion—Sponsored by Committee 612
MARK MORRIS, Chairman

Current Concepts of Fundamental Principles of Curing
A. G. TIMMS
National Bureau of Standards, Washington, D. C.

Current Practices in Curing Concrete Pavements
D. L. ROBINSON
Missouri State Highway Dept., Jefferson City, Mo.

Recommended Practices for Curing Structural Concrete
HERBERT J. GILKEY
Iowa State College, Ames, Iowa

Recommended Practices for Curing Mass Concrete
W. R. JOHNSON and ROY W. CARLSON
Corps of Engineers, Portland, Ore., and Consulting Engineer, Berkeley, Calif., respectively

Recommended Practice for Curing Canal Lining
G. E. BURNETT
Bureau of Reclamation, Denver, Colo.

Curing Agents for Concrete
H. C. VOLLMER
Emergency Transportation Dept., Washington, D. C.

9 a.m., WEDNESDAY, FEBRUARY 27

Concurrent sessions will be held morning and afternoon in the Pavilion Caprice and Parlors A-D

Pavillion Caprice
Past-President FRANK H. JACKSON, Chairman

ULTIMATE LOAD DESIGN

Introduction
LEO H. CORNING, Session Leader
Portland Cement Assn., Chicago, Ill.

Why Design by Ultimate Load Theories?
BOYD G. ANDERSON
Ammann and Whitney, New York, N. Y.

Fundamental Concepts in Ultimate Load Design of Reinforced Concrete Members
EIVIND HOGNESTAD
University of Illinois, Urbana, Ill.

Research on Ultimate Strength of Reinforced Concrete Members
C. P. SIESS
University of Illinois, Urbana, Ill.

Design of Sections by Ultimate Load Theories
RAYMOND C. REESE
Consulting Engineer, Toledo, Ohio

Load Factors in Ultimate Design
T. Y. LIA
University of California, Berkeley, Calif.
ACI CONVENTION AREA
Netherland Plaza Hotel—Cincinnati

FOURTH FLOOR PLAN
TECHNICAL COMMITTEE MEETINGS
MONDAY, FEBRUARY 25
4:30 p.m.—318 Properties of Lightweight Aggregate Concrete—G. W. Washa, chairman Parlor K
318 Standard Building Code, Subcommittee 7
Raymond C. Reese, chairman
318 Standard Building Code, Subcommittee 10
N. M. Newmark, chairman

TUESDAY, FEBRUARY 26
8:30 a.m.—318 Standard Building Code, Subcommittee 4
Frank Kerekes, chairman Parlor F
318 Standard Building Code, Subcommittee 8
J. DiStasio, chairman
318 Standard Building Code, Subcommittee 9
N. D. Mitchell, chairman
323 Prestressed Reinforced Concrete
A. E. Cummings, chairman
326 Shear and Diagonal Tension
C. S. Whitney, chairman
612 Recommended Practice for Curing Concrete
Mark Morris, chairman
716 High Pressure Steam Curing
W. C. Hansen, chairman

8:00 p.m.—314 Rigid Frame Bridges
D. H. Pletta, chairman Parlor C
315 Detailing Manual
R. C. Reese, chairman
321 Design of Reinforced Concrete Slabs
N. M. Newmark, chairman
324 Precast Reinforced Concrete Structures
A. Amirikian, chairman
604 Winter Concreting Methods
M. F. Macnaughton, chairman
711 Precast Floor Systems for Houses
F. N. Menefee, chairman

9 a.m., WEDNESDAY, FEBRUARY 27
Concurrent sessions will be held morning and afternoon in the Pavilion Caprice and Parlors A-D

Parlors A-D
President HARRY F. THOMSON, Chairman

MATERIALS AND PROPERTIES OF CONCRETE

Thermal Expansion of Aggregates and Concrete Durability
EDWIN J. CALLAN
Waterways Experiment Station, Jackson, Miss.

Effect of Temperature Changes on Concrete as Influenced by Aggregates
DELMAR BLOOM, STANTON WALKER and W. G. MULLEN
National Sand and Gravel Assn., Washington, D. C.

Calcium Chloride in Concrete
J. J. SIBLEY
Bureau of Reclamation, Denver, Colo.

Use of Chicago Fly Ash to Reduce Cement-Aggregate Reaction
C. H. SCHOLER and G. M. SMITH
Kansas State College, Manhattan, Kans.

Bond in Welded Wire Fabric Reinforced Concrete
ARTHUR R. ANDERSON
Consulting Engineer, Tacoma, Wash.

WEDNESDAY, FEBRUARY 27
7:30 p.m.—611 Inspection of Concrete
J. W. Kelly, chairman Parlor B
8:00 p.m.—115 Research (Executive Group)
S. J. Chamberlin, chairman C
318 Standard Building Code (General Meeting)
Frank Kerekes, chairman I
8:30 p.m.—613 Recommended Practice for Proportioning Concrete Mixes
W. H. Price, chairman A

Continued on p. 11
AWARDS LUNCHEON

Presentation of Awards
President Thomson on behalf of the Board of Direction

HENRY C. TURNER Medal to
RAYMOND E. DAVIS
"in recognition of numerous outstanding and greatly diversified contributions to the technology of concrete as a material."

ALFRED E. LINDAU Award to
DOUGLAS E. PARSONS
"for his many years of quiet perseverance in directing and coordinating development of standards of practice for reinforced concrete design."

LEONARD C. WASON Medal for the "Most Meritorious Paper" of ACI Proceedings V. 47 (February 1951 Journal) to
WALTER H. PRICE
"Factors Influencing Concrete Strength"

LEONARD C. WASON Medal for "Noteworthy Research" to
W. J. McCOY and A. G. CALDWELL
for the work reported in their paper (Proceedings V. 47, May 1951 Journal)
"New Approach to Inhibiting Alkali-Aggregate Expansion"

American Concrete Institute CONSTRUCTION PRACTICE AWARD for a "paper of outstanding merit" on concrete construction practice to
OTTO SAIFER
for his paper in the ACI Journal (February 1951) entitled
"Precast Concrete Construction in Canada"

2:30 p.m., WEDNESDAY, FEBRUARY 27

Concurrent sessions in Pavilion Caprice and Pabors A-D

Pavilion Caprice
Vice-President HENRY L. KENNEDY, Chairman

DESIGN

Field Practice in Lightweight Concrete
J. A. MURPHY and CEDRIC WILLSON
George L. Dahl, Architects and Engineers, and Texas Industries, Dallas, Texas, respectively

Economy of Concrete Beams
HERBERT A. SAYRE, JR.
University of Connecticut, Storrs, Conn.

Developments in Reinforcing Steel and Concepts of Safety
K. HAUNA-KOYI
Consulting Engineer, London, England

Analysis of Skewed Rigid Frames
JAMES P. MIKHAIL
Iowa State College, Ames, Iowa

Report of Tellers and Introduction of New Officers

Recognition of Retiring Directors and Officers

Retiring President's Address
HARRY F. THOMSON
Ready Mixed Concrete Div., Material Service Corp., Chicago, Ill.

Luncheon Speaker
JOHN V. MAESCHER
President, Allied Construction Industries, Cincinnati
2:30 p.m., WEDNESDAY, FEBRUARY 27

Concurrent sessions in Pavillon Caprice and Parlors A-D

Parlors A-D

Past-President ROBERT F. BLANKS, Chairman

CONSTRUCTION

Applications of Vacuum Concrete

K. P. BILLNER

Electric Heating of Concrete in Winter Construction

CHIKO ITAKURA
Hokkaido University, Sapporo, Japan

Small Building Construction

C. O. CHRISTENSEN
National Assn. of Home Builders, Washington, D.C.

Insulation for Protection of New Concrete in Winter

L. H. TUTTLE, R. E. GLOVER, C. H. SPENCER
and W. H. BIERCE
Bureau of Reclamation, Denver, Colo.

Centriline Process of Pipe Lining

A movie prepared by Raymond Concrete Pile Co., New York, N.Y.

9:00 a.m., THURSDAY, FEBRUARY 28

Pavillon Caprice

Annual Open Session of ACI Committee 115, Research

STEPHEN J. CHAMBERLIN, Chairman
GEORGE W. WASHA, Secretary

This convention feature differs from general sessions in that the information is not released for publication. Request is made that proceedings be regarded as CONFIDENTIAL. A group of short papers will be presented on research techniques and preliminary results on fatigue testing of concrete beams, weathering and freezing and thawing tests, impulse loading, stress distribution, volumetric changes, and other subjects.

ATTENDANCE AT THE SESSION IS THE ONLY SURE WAY OF BEING IN ON THOSE PREVIEWS OF THE MANY FUTURE DEVELOPMENTS IN CONCRETE.

Please clear the Pavillon promptly at the end of the session to permit hotel personnel to arrange it for the luncheon to follow.

12:15 p.m.—PAVILLON CAPRICE

HARVEY WHIPPLE LUNCHEON

Past-President STANTON WALKER, Presiding

Obtain tickets at time of registration—$1.50

2:30 p.m.—PAVILLON CAPRICE

Panel discussion

HERBERT J. GILKES, Chairman

M. D. CATTON
R. E. COPELAND
R. W. GILMORE
EDWARD C. HARDING
EIVIND HOGNESSAD
CHARLES T. KENNEDY

F. N. MCNAIR
NOLAN D. MITCHELL
J. A. MURRIN
J. P. THOMPSON
C. E. WUERPEL
CINCINNATI CONVENTION COMMITTEE
(In charge of local arrangements)

Edward C. Harding, General Chairman

Julian B. Carson, Publicity

Fred F. McMinn, Inspection trips

H. K. Justice, Student and Engineering Club liaison

Hunter W. Hanly, Advisor on technical program

John V. Maescher, Finance

L. W. Hixson, Arrangements and entertainment

Henry D. Loring

C. O. Christy

The AMERICAN CONCRETE INSTITUTE

Is a nonprofit, nonpartisan organization of engineers, architects, scientists, builders, manufacturers and representatives of industries associated in their technical interest with the field of concrete, dedicated to the public service. Its primary objective is to assist its members and the engineering profession generally, by gathering and disseminating information about the properties and applications of concrete and reinforced concrete and their constituent materials.

It is self-supported by membership dues and the sale of its publications. Since 1905 its primary objective has been achieved by the combined membership effort. Individually and through committees, and with the cooperation of many public and private agencies, members have correlated the results of research, from both field and laboratory, and of practices in design, construction and manufacture.

The work of the Institute has become available to the engineering profession in annual volumes of ACI Proceedings since 1905. Beginning 1929 the Proceedings have first appeared periodically in the Journal of the American Concrete Institute and in many separate publications.

AMERICAN CONCRETE INSTITUTE

18263 W. McNichols Rd. Detroit 19, Michigan