



PROGRAM



64th

ANNUAL CONVENTION

in

Los Angeles, California

March 2-8, 1968

STATLER HILTON HOTEL

Los Angeles, California

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* Address

AMERICAN CONCRETE INSTITUTE

P.O. Box 4754

Detroit, Michigan 48219

— CONVENTION REGISTRATION —

Sunday, March 3 through Thursday,

March 7 8:00 a.m. to 6:00 p.m.

Friday, March 8 8:00 a.m. to 2:00 p.m.

REGISTRATION FEES:

ACI Members \$15.00

Nonmembers \$25.00

Students Free

Registration fees cover attendance at all ACI technical committee meetings, general sessions, symposia, and the social hour.

* * * SPECIAL EVENTS * * *

* **Technical-Educational Exhibits** . . . Tuesday through Thursday in the Wilshire Room on the Ballroom floor. Have your program card (inside back flap) stamped completely to qualify for valuable door prizes.

* **"Concrete Mixer" Cocktail Hour** featuring the Miriachi Players . . . Wednesday, 6:30 p.m. Please wear your badge . . . Pacific Ballroom.

* **University of Illinois Alumni Breakfast** . . . 7:45 a.m., Wednesday, March 6, in the Assembly Room. Tickets are available from alumni and University of Illinois staff members. \$3.00 per person.

* **Awards Luncheon and Installation of New ACI Officers** . . . 12:15 p.m., Thursday, in the Pacific Ballroom. One may purchase tickets up to 2:00 p.m., Wednesday, March 6, at the Registration Desk. \$5.00 per person.

* **Photo and Model Display** . . . Monday through Friday, display panels will feature many unusual and outstanding concrete structures as well as photos of some of the structures to be discussed during the Friday Symposium on Structural Models. Models will also be on display in the exhibits hall (Wilshire Room).

NOTE TO ACI MEMBERS

Each ACI member will be given a packet of ballots at registration. It is the only set that will be issued you at this meeting. It is therefore important to protect them from loss and to bring them with you to the General Session at which matters will be presented for vote.

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BREAKFASTS

7:30 a.m. (By invitation only)

Tuesday, March 5 — Breakfasts for newly appointed chairmen of technical committees. Cleveland Room.

Wednesday, March 6 — Program breakfast. New York Room.

Thursday, March 7 — Research program breakfast. Boston Room.

Friday, March 8 — Program breakfast for participants in Model Symposium and Legal Responsibility Symposium. Boston Room.

★

TECHNICAL COMMITTEE MEETINGS

Meeting topics are in bold. Be sure to check the bulletin board for last minute changes or added changes.

SUNDAY, March 3

9:00 a.m. to 12:00 noon

COMMITTEE	Meeting Room
— Board Committee on Chapter Activities	Washington
301 Specifications for Structural Concrete (Subcommittee reports)	Garden West
504 Joint Sealants (Report acceptance)	New York
517 Low Pressure Steam Curing (Proposed standard)	Los Angeles
533 Subcommittee 2 of Committee 533, Precast Panels	Sierra
543 Concrete Piles (Final draft)	St. Louis & Foy

2:00 p.m. to 5:00 p.m.

COMMITTEE	Meeting Room
— Board Committee on Education	Mission
— Board Committee on Research (ACI's role in research and development)	Dallas
213 Subcommittee D of Committee 213, Lightweight Aggregates and Lightweight Aggregate Concrete (Design considerations)	Detroit
301 Specifications for Structural Concrete (Subcommittee reports)	Garden West
504 Joint Sealants (Report acceptance)	New York
517 Low Pressure Steam Curing (Proposed standard)	Los Angeles
533 Precast Panels (Proposed standard)	Sierra
543 Concrete Piles (Final draft)	St. Louis & Foy

MONDAY, March 4

9:00 a.m. to 12:00 noon

COMMITTEE	Meeting Room
— Board Committee on Long-Range Planning	Washington
104 Notation (New system)	Cleveland
212 Admixtures	Assembly C
213 Subcommittee C of Committee 213, Lightweight Aggregates and Lightweight Aggregate Concrete (Construction practice)	Assembly A
304 Measuring, Mixing, Transporting, and Placing Concrete (Proposed standard)	New York
309 Consolidation of Concrete (Draft reports; research needs)	Garden East
315 Detailing Reinforced Concrete Structures (1969 revision)	Boston
318 Subcommittee 4 of Committee 318, Standard Building Code - Materials (Final drafts of Chapters 4, 5, and 6 of Code)	Detroit
318 Subcommittee 13 of Committee 318, Standard Building Code — Bond (Code revisions)	Dallas
348 Structural Safety (New code based on probabilistic concepts)	Golden State
426 Shear and Diagonal Tension — Joint ACI-ASCE (Research in progress and recommendations to Building Code)	Garden West
437 Strength Evaluation of Existing Concrete Structures (Subcommittee reports)	Los Angeles
439 High Strength Reinforcement in Concrete (Earthquake and blast resistance, guidelines, welding Grade 60 steel)	Buffalo
512 Precast Structural Concrete (First draft of revised standard)	Mission
533 Precast Panels (Proposed standard)	Sierra
543 Concrete Piles (Final draft)	St. Louis & Foy

MONDAY, March 4

2:00 p.m. to 5:00 p.m.

COMMITTEE	Meeting Room
114 Research and Development	Assembly A
118 Use of Computers	Assembly C
211 Subcommittee 3 of Committee 211, Proportioning Concrete Mixes — Normal Weight Concrete (Final draft)	Cleveland
223 Subcommittee 6 of Committee 223, Expansive Cement Concretes — Research (State of the art)	Dallas
309 Consolidation of Concrete (Draft reports; research needs)	Garden East
315 Detailing Reinforced Concrete Structures (1969 revision)	Boston
318 Subcommittee 9 of Committee 318, Standard Building Code — General Design (1970 Code)	Mission
340 Ultimate Strength Design Handbook (Volume II of the handbook)	Golden State
426 Shear and Diagonal Tension — Joint ACI-ASCE (Research in progress and recommendations to Building Code)	Garden West
428 Limit Design (Committee report)	New York
437 Strength Evaluation of Existing Concrete Structures (Subcommittee reports)	Los Angeles
443 Concrete Bridge Design (Proposed standard)	Sierra
515 Coatings for Concrete (Painting concrete, waterproofing, and dampproofing)	Detroit
543 Concrete Piles (Final draft)	St. Louis & Foy

7:00 p.m.

COMMITTEE	Meeting Room
201 Durability of Concrete (Guide for field survey)	St. Louis & Foy
207 Mass Concrete (Committee report)	Los Angeles
213 Subcommittee A of Committee 213, Lightweight Aggregates and Lightweight Aggregate Concrete — Aggregate Properties	Assembly A
223 Subcommittee 5 of Committee 223 — Expansive Cement Concretes — Pavements and Structures	Cleveland
305 Hot Weather Concreting (Draft of revised standard)	Garden West
309 Consolidation of Concrete (Draft reports)	Garden East
318 Subcommittee 8 of Committee 318, Standard Building Code — Reinforcement (1970 Code)	Detroit

MONDAY, MARCH 4

7:00 p.m. (continued)

COMMITTEE	Meeting Room
318 Subcommittee 10 of Committee 318, Standard Building Code — Flexure (1970 Code USD)	Dallas
318 Subcommittee 20 of Committee 318, & Standard Building Code —	
421 Slabs and Joists; and Committee 421 — Reinforced Concrete Slabs (Joint session on reinforced concrete slabs)	Mission
348 Structural Safety (New code based on probabilistic concepts)	Golden State
428 Limit Design (Committee report)	New York
443 Concrete Bridge Design (Proposed standard)	Sierra
531 Concrete Masonry Structures (Completion of report)	Buffalo

TUESDAY, March 5

9:00 a.m. to 12:00 noon

COMMITTEE	Meeting Room
213 Subcommittee B of Committee 213, Lightweight Aggregate Concrete — Concrete Properties	Assembly A (at 10:00 a.m.)
224 Cracking (Subcommittee reports)	Garden West
307 Reinforced Concrete Chimneys (Specifications)	Buffalo
313 Concrete Bins and Silos (Bin bottoms, farm silos)	Washington
318 Subcommittee 12 of Committee 318, Standard Building Code — Shear (1970 Code)	Golden State
344 Circular Prestressed Structures	Assembly C (at 10:00 a.m.)
347 Formwork for Concrete (Revised standard)	Los Angeles
350 Sanitary Engineering Structures (Final draft)	Boston
352 Joints and Connections in Monolithic Structures (Discussion on standard)	New York
438 Torsion (Design recommendations)	St. Louis & Foy
441 Concrete Columns — Joint ACI-ASCE (Summary report)	Garden East
443 Concrete Bridge Design (Proposed standard)	Sierra
516 High Pressure Steam Curing	Dallas
524 Portland Cement Plastering (Rough draft)	Detroit

TUESDAY, March 5

2:00 p.m. to 5:00 p.m.

COMMITTEE	Meeting Room
211 Proportioning Concrete Mixes (Revised standard)	Cleveland
213 Subcommittee E of Committee 213, Lightweight Aggregate Concrete — Special Projects and Applications	Assembly A
215 Fatigue of Concrete (Tentative recommendations)	Buffalo
303 Architectural Concrete	Garden West
311 Inspection of Concrete (Codification of inspection)	Los Angeles
313 Concrete Bins and Silos (Bin bottoms, farm silos)	Washington
318 Standard Building Code (Subcommittee reports and drafts)	Golden State
325 Structural Design of Concrete Pavements for Highways and Airports (Updating procedures)	Dallas
344 Circular Prestressed Structures	Assembly C
350 Sanitary Engineering Structures (Final draft)	Boston
423 Prestressed Concrete — Joint ACI-ASCE (Proposals for new Building Code)	Garden East
435 Deflection of Concrete Building Structures (Subcommittee reports)	New York
438 Torsion (Design recommendations)	St. Louis & Foy
443 Concrete Bridge Design (Proposed standard)	Sierra
524 Portland Cement Plastering (Rough draft)	Detroit

7:00 p.m.

COMMITTEE	Meeting Room
117 Tolerances	Dallas
119 Education (Task group accomplishments)	Washington
209 Creep and Shrinkage in Concrete (Proposed symposium)	Garden West
214 Evaluation of Results of Strength Tests of Concrete	Mission
302 Concrete Floor Finishes (Committee report)	New York
322 Design of Structural Plain Concrete (Proposed standard)	Assembly A
334 Concrete Shell Design and Construction	St. Louis & Foy
344 Circular Prestressed Structures	Assembly C

TUESDAY, MARCH 5

7:00 p.m. (continued)

COMMITTEE	Meeting Room
349 Criteria for Nuclear Containment Vessels (Design for secondary vessels)	Cleveland
408 Bond Stress (Code modifications, research in progress)	Golden State
423 Prestressed Concrete — Joint ACI-ASCE (Proposals for new Building Code)	Garden East
443 Concrete Bridge Design (Proposed standard)	Sierra
506 Shotcreting (Preliminary report)	Boston
523 Insulating and Cellular Concretes (Preparation of guide)	Los Angeles

WEDNESDAY, March 6

9:00 a.m. to 12:00 noon

COMMITTEE	Meeting Room
— Chapter Forum	Washington
— Ad Hoc Committee on Structural Model Analysis (Future role)	Detroit
115 Current Research (Committee report)	Golden State (at 10:00 a.m.)
213 Lightweight Aggregates and Light weight Aggregate Concrete (Future role)	Garden East
214 Evaluation of Results of Strength Tests of Concrete	Mission
222 Corrosion of Metals in Concrete	Assembly C
223 Expansive Cement Concretes (State of art)	Los Angeles
302 Concrete Floor Finishes (Committee report)	New York
308 Curing Concrete (Final draft)	Boston
316 Construction of Concrete Pavements and Concrete Bases	Buffalo
318 Standard Building Code (Subcommittee reports and drafts)	Sierra
333 Composite Construction — Joint ACI-ASCE (Subcommittee reports)	St. Louis & Foy
442 Response of Buildings to Lateral Forces (Committee report)	Cleveland
443 Concrete Bridge Design (Proposed standard)	Garden West
503 Adhesives for Concrete (Guide revision)	Assembly A
544 Fiber-Reinforced Concrete	Dallas

WEDNESDAY, March 6

2:00 p.m. to 5:00 p.m. . . Pacific Ballroom
FIRST GENERAL SESSION

CHAIRMAN: C. Taylor Test, general chairman, 64th Annual Convention, and manager, Technical Services, Southwestern Portland Cement Company, Los Angeles, California

Presidential Address — Clyde E. Kesler, professor of theoretical and applied mechanics and of civil engineering, T&AM Department, University of Illinois, Urbana

Proposed Revision of ACI Bylaws

Presentation of the revised standard "Recommended Practice for Concrete Formwork" — by Committee 347, William R. Waugh, chairman, and supervisory civil engineer, Office, Chief of Engineers, Washington, D.C.

Report of ACI Technical Activities Committee — S. D. Burks, chairman, and manager, Rock Products Chemicals West, Dewey and Almy Chemical Division, W. R. Grace & Co., San Leandro, California

Concrete and the State Water Project — William R. Gianelli, director, Department of Water Resources, State of California, Sacramento

Function of Cement Paste in Concrete — Katharine Mather, chief, Petrography Section, Concrete Division, U.S. Army Engineer Waterways Experiment Station, Jackson, Mississippi; and George Verbeck, director of research, Research and Development Division, Portland Cement Association, Skokie, Illinois

6:30 p.m. **"CONCRETE MIXER"** social hour

featuring the Miriachi Players

. . . Pacific Ballroom

THURSDAY, March 7

12:15 p.m. . . . Pacific Ballroom
AWARDS LUNCHEON

HONORARY MEMBERSHIP

- Phil M. Ferguson
- Hubert Rüsich

• **Henry C. Turner Medal to**
MILO S. KETCHUM

"for his pioneer work in the field of thin shell and folded plate structure, for advancing the use of concrete through his teaching, books, and articles on structural concrete, and for his active participation over a 32-year period in a number of technical committees of ACI"

• **Alfred E. Lindau Award to**
ARTHUR R. ANDERSON

"in recognition of his leadership and excellence in the design and execution of prestressed and precast concrete structures"

• **Henry L. Kennedy Award to**
SAMUEL HOBBS

"in recognition of his outstanding service to the Institute in establishing its first local chapter in Southern California and for continuing diligence in promoting the chapter movement in ACI and education programs on the local level"

• **Charles S. Whitney Award to**
the late EERO SAARINEN and his associates
KEVIN ROCHE, JOHN DINKELOO, and
JOSEPH LACY

"for distinguished use of concrete in a multiple and diverse application to the art and practice of architecture"

• **Wason Medal for Most Meritorious Paper to**
TORBEN C. HANSEN and LEIF ERIKSSON

"for their paper 'Temperature Change Effect on Behavior of Cement Paste, Mortar and Concrete Under Load,' ACI JOURNAL, April 1966, pp. 489-504"

• **Wason Medal for Research to**
ALAN D. BUCK and W. L. DOLCH

"for their paper 'Investigation of a Reaction Involving Nondolomitic Limestone Aggregate in Concrete,' ACI JOURNAL, July 1966, pp. 755-765"

• **Construction Practice Award to**
EVERETTE W. OSGOOD and JAMES W. KEITH
"for their paper 'Construction of the Accelerator Housing at the Stanford Linear Accelerator Center,' ACI JOURNAL, April 1966, pp. 425-440"

- * Recognition of Retiring Officers
- * Report of Tellers and Introduction of New Officers
- * Presentation of Memento to Retiring President

THURSDAY, March 7



CONCURRENT SESSIONS

(Note time designations for each topic)

9:00 a.m. to 12:00 noon

DESIGN AND ANALYSIS

. . . Garden Rooms

CHAIRMAN: Warren G. Burres, district engineer, Portland Cement Association, Los Angeles, California

- 9:05 **Ductile Moment-Resisting Space Frames of Reinforced Concrete** — Walter A. Brugger, chief, Engineering Research and Development Bureau, Department of Building and Safety, City of Los Angeles, Los Angeles, California
- 9:45 **A New Approach to Earthquake Design of Multistory Structures** — Mark Fintel, manager, Design Section, Portland Cement Association, Chicago, Illinois; and Fazlur R. Khan, chief structural engineer, Skidmore, Owings & Merrill, architects and engineers, Chicago, Illinois
- 10:30 BREAK
- 10:45 **Structural Damage Caused by the July 1967 Earthquake in Caracas, Venezuela** — Mete A. Sozen, professor, Department of Civil Engineering, University of Illinois, Urbana
- 11:20 **Allowable Deflections** — A report by ACI Committee 435, Subcommittee 1 . . . paper to be presented by Russell S. Fling, chairman of Subcommittee 1 of Committee 435, and president, Fling and Eeman, Inc., consulting engineers, Columbus, Ohio

THURSDAY, March 7

- 9:05 **Commendation to Professor Raymond E. Davis by ACI President Clyde E. Kesler**

Development Division, Portland Cement Association, Skokie, Illinois

- 9:25 **Dynamic Properties of Preloaded Concrete Cylinders** — Charles W. Brink, instructor, Department of Civil Engineering; and Roger M. Zimmerman, assistant dean, College of Engineering, New Mexico State University, Las Cruces

- 9:40 **Effect of Chlorides on Concrete Subjected to Wetting and Drying** — Douglas Deno, associate research engineer; and Paul Klieger, manager, Applied Research, Research and Development Division, Portland Cement Association, Skokie, Illinois

- 9:55 **Behavior of Plain Concrete Under Variable Load Histories**—I. D. Karsan, research assistant; and J. O. Jirsa, assistant professor, Department of Civil Engineering, Rice University, Houston, Texas

10:10 BREAK

- 10:25 **Creep of Concrete in the Temperature Range of 225-450° F** — Karim W. Nasser, associate professor, Department of Civil Engineering, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

- 10:40 **Mechanical Properties of Normally Cured Concrete at Very Early Ages** — Howard H. Newlon, Jr., highway research engineer; and David Williams, special trainee, Virginia Highway Research Council, Charlottesville

- 10:55 **Influence of Tensile and Shear Strength of Aggregate-Paste Interface on Mechanical Properties of Concrete Under Uniaxial Compression** — Floyd O. Slate, associate professor, Department of Civil Engineering, Cornell University, Ithaca, New York

- 11:10 **Creep of Hardened Portland Cement Paste under Uniaxial and Biaxial Loading**—J. W. H. King, head, Department of Civil Engineering, Queen Mary College, University of London, London, England; and J. Timusk, assistant professor, Department of Civil Engineering, University of Toronto, Toronto, Ontario, Canada

- 11:25 **Air Entrainment in Concrete** — Patrick H. Torrans, research associate; and Don L. Ivey, assistant research engineer, Structural Research Laboratory, Texas Transportation Institute, Texas A & M University, College Station



9:00 a.m. to 12:00 noon

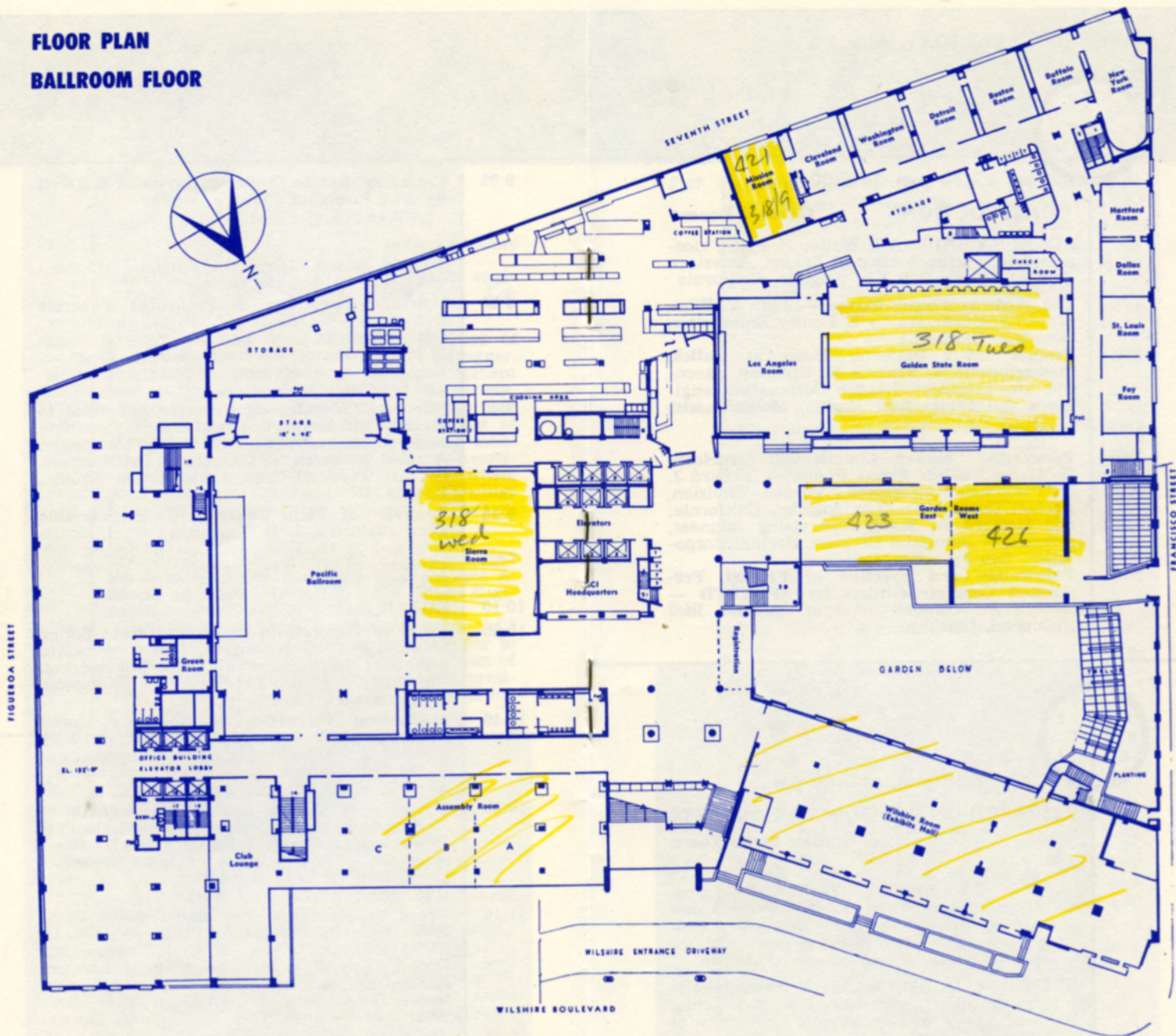
RESEARCH ON PLAIN CONCRETE

. . . Golden State Room

Under the supervision of ACI Committee 115 — Current Research. This research in progress session differs from the other ACI general sessions in that the reports given are not released for publication. Request is made that the proceedings be regarded as confidential.

In recognition of his many years of dedicated service, this session on research is presented in honor of Raymond E. Davis, professor emeritus of the University of California and long time member of Committee 115's Executive Group.

FLOOR PLAN
BALLROOM FLOOR



THURSDAY, March 7

THURSDAY, March 7



CONCURRENT

(Note time designations for each topic)

2:30 p.m. to 5:00 p.m.

CONSTRUCTION . . . Garden Rooms

SESSION CHAIRMAN: Walter H. Price, vice-president, Pacific Southwest Region, American Cement Corporation, Los Angeles, California

- 2:35 **The Wedway People Mover** — John C. Wise, project engineer, Walter E. Disney Enterprises, Glendale, California
- 3:05 **Precast 150-ft Diameter Dome at Natick, Massachusetts** — Francis X. Crowley, executive vice-president, Natgun Corporation, engineers and contractors, Boston, Massachusetts
- 3:35 BREAK
- 3:50 **Prestressed Concrete Containment Structures for Large Nuclear Power Plants** — Richard J. Kosiba, senior engineer, Vernon Division, Bechtel Corporation, Los Angeles, California; and Howard W. Wahl, supervising engineer, Power and Industrial Division, Bechtel Corporation, San Francisco, California
- 4:20 **Fabrication and Erection of Precast, Prestressed Concrete Girders for SFBARTD** — George A. Williams, manager, Castcon, Inc., Richmond, California



2:30 p.m. to 5:00 p.m.

RESEARCH ON REINFORCED CONCRETE . . . Golden State Room

Under the supervision of ACI Committee 115 — Current Research. This research in progress session differs from the other ACI general sessions in that the reports given are not for publication. Request is made that the proceedings be regarded as confidential.

SESSION CHAIRMAN: Adrian Pauw, chairman of ACI Committee 115, and acting dean, College of Engineering, University of Missouri, Columbia

- 2:35 **A Model for Cracking in Flexure** — C. B. Brown, professor, Department of Civil Engineering, Columbia University, New York, New York

SESSIONS

- 2:47 **Camber and Prestress Loss in Full Size Highway Beams of Normal Weight and Lightweight Concrete** — Howard Furr, professor and research engineer; and Ralph Sinno, assistant research engineer, Department of Civil Engineering, Texas Transportation Institute, Texas A & M University, College Station
- 3:00 **The Fundamental Concepts of the Cracking Phenomenon in Reinforced Concrete Members — Splitting Cracks** — Peter Gergely, assistant professor; and N. K. Sharma, student, School of Civil Engineering, Cornell University, Ithaca, New York
- 3:12 **Behavior of Prestressed Concrete Continuous Flat Slabs with Drop Panels** — T. Y. Lin, professor, Department of Civil Engineering, University of California, Berkeley
- 3:25 BREAK
- 3:40 **Strength of Combined Frames and Shear Walls** — James G. MacGregor, associate professor; P. F. Adams, associate professor; and W. J. Clark, graduate student, Department of Civil Engineering, University of Alberta, Edmonton, Alberta, Canada
- 3:52 **Shearwalls for High-Rise Buildings** — Donald D. Magura, development engineer, Research and Development Division, Portland Cement Association, Skokie, Illinois

THURSDAY, March 7

CONCURRENT SESSIONS



2:30 p.m. to 5:00 p.m.

RESEARCH ON REINFORCED CONCRETE

. . . Golden State Room

- 4:05 **Investigation of a Prestressed-Precast Composite Bridge System** — John R. Salmons, assistant professor, Department of Civil Engineering, University of Missouri, Columbia
- 4:17 **Fracture Toughness of Fiber-Reinforced Concrete** — Surendra P. Shah, assistant professor, Department of Materials Engineering, University of Illinois at Chicago, Chicago
- 4:30 **Bond Strength as a Function of Strand Tension and Cement Paste Content** — Leonard G. Tulin, professor, Department of Civil Engineering, University of Colorado, Boulder
- 4:45 **Diaphragm Shear Connectors Between Flanges of Prestressed Concrete T-Beams** — William J. Venuti, professor, Department of Civil Engineering and Applied Mechanics; and David Nazarian, San Jose State College, San Jose, California

FRIDAY, March 8 . . . 9:00 a.m. to 12:00 noon

SYMPOSIUM ON LEGAL RESPONSIBILITIES IN CONCRETE CONSTRUCTION

. . . Pacific Ballroom

A full-day symposium which brings forth three case outlines. A case outline each will be presented by a panel from ACI's Southern California, New Jersey, and Washington State Chapters.

SESSION CHAIRMAN: Charles H. Knight, Jr., western regional manager, Portland Cement Association, San Francisco, California

9:00 **OPENING STATEMENT**—Charles H. Knight, Jr., session chairman

9:05 **KEYNOTE ADDRESSES:**
The Legal Process — Gardiner Johnson, partner, Johnson & Stanton, attorneys, San Francisco, California

Responsibilities to the Owner — Robert L. Durham, president of AIA, partner, Durham, Anderson & Freed, Seattle, Washington

Contract Relationships — Raymond C. Reese, Raymond C. Reese Associates, consulting engineers, Toledo, Ohio

Litigation, A Costly Item — Fred W. Mast, president-elect of AGC, president, Jens Olesen & Sons Construction Co., Waterloo, Iowa

FRIDAY, March 8

CONCURRENT

(Note time designations for each topic)



9:00 a.m. to 12:00 noon

SYMPOSIUM ON LEGAL RESPONSIBILITIES IN CONCRETE CONSTRUCTION

. . . Pacific Ballroom

10:45 LEGAL CASE OUTLINES:

CASE I OUTLINE: Failure of a Concrete-Shored, Spread-Footing Excavation

MODERATOR — George E. Battey, Jr., vice-president and chief engineer, Smith-Emery Co., Los Angeles, California

ATTORNEY — Norman R. Willian, partner, Booth, Mitchel, Strange & Willian, attorneys, Los Angeles, California

CASE II OUTLINE: Unacceptable Cracking of a Large Industrial Floor Slab on Grade

MODERATOR — Holly A. Cornell, vice-president, Cornell, Howland, Hayes & Merryfield, consulting engineers, Seattle, Washington

ATTORNEY — Paul R. Cressman, senior partner, Short, Cressman & Cable, attorneys, Seattle, Washington

CASE III OUTLINE: Parking Garage Failure

MODERATOR — Edward G. Nawy, professor, Department of Civil Engineering, Rutgers — the State University, New Brunswick, New Jersey

ATTORNEY — Morton Stavis, principal, Stavis, Richardson, Koenigsberg & Rossmoore, attorneys, Newark, New Jersey

FRIDAY, March 8

SESSIONS



9:00 a.m. to 12:00 noon

SYMPOSIUM ON STRUCTURAL MODELS

. . . Garden Rooms

(ACI ad hoc Committee on Structural Models)

CHAIRMAN: Richard N. White, chairman, ad hoc Committee on Structural Models, and associate professor, Department of Structural Engineering, Cornell University, Ithaca, New York (Currently on leave with Gulf General Atomic, in La Jolla, California)

SESSION CHAIRMAN: Edward Cohen, partner, Ammann & Whitney, consulting engineers, New York, New York

9:05 **Introduction to Structural Models** — by Subcommittee 1. Presented by Jack Janney, partner, Wiss, Janney, Elstner and Associates, consulting and research engineers, Northbrook, Illinois

9:45 Discussion

9:50 **Principles of Model Analysis** — by Subcommittee 2. Presented by Paul Zia, professor, Department of Civil Engineering, North Carolina State University, Raleigh

10:10 Discussion

10:15 BREAK

10:30 **Techniques and Materials** — by Subcommittee 3. Presented by James Carpenter, associate development engineer, Research and Development Division, Portland Cement Association, Skokie, Illinois

10:50 Discussion

10:55 **Interpretation of Results and Confidence Levels** — by Subcommittee 4. Presented by William Little, assistant professor, Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge

11:45 Discussion

FRIDAY, March 8

CONCURRENT SESSIONS

(Note time designations for each topic)



1:30 p.m. to 5:00 p.m.

SYMPOSIUM ON LEGAL RESPONSIBILITIES IN CONCRETE CONSTRUCTION

At this time, the general session will break into three concurrent sessions which will be open to the general attendance.

1:30

WORKSHOP I — CASE OUTLINE I:

... Pacific Ballroom

Failure of a Concrete-Shored, Spread-Footing Excavation — by ACI Southern California Chapter

Moderator — George E. Battey, Jr., vice-president and chief engineer, Smith-Emery Co., Los Angeles, California

Attorney — Norman R. Willian, partner, Booth, Mitchel, Strange & Willian, attorneys, Los Angeles, California

Architect — Herman Charles Light, Architect, Los Angeles, California

Engineer — S. B. Barnes, Civil and Structural Engineer, Los Angeles, California

Contractor — Charles J. Pankow, president, Charles Pankow, Inc., Pasadena, California

Public Official—Coleman W. Jenkins, superintendent for building, Los Angeles County Engineering Department, Los Angeles, California

1:30

WORKSHOP II — CASE OUTLINE:

... Sierra Room

Unacceptable Cracking of a Large Industrial Floor Slab on Grade — by ACI Washington State Chapter

Moderator — Holly A. Cornell, vice-president, Cornell, Howland, Hayes & Merryfield, Seattle, Washington

Attorney — Paul R. Cressman, senior partner, Short, Cressman & Cable, Seattle, Washington

Architect — Ralph H. Burkhard, Architect, Seattle, Washington

Engineer — Halvard W. Birkeland, president, ABAM Engineers, consulting engineers, Tacoma, Washington

Contractor — Ted Knudson, president, Knudson Construction Co., Mountlake Terrace, Washington

Concrete Producer — Robert W. Jackson, Pioneer Sand & Gravel Co., Seattle, Washington

Materials Testing and Inspection — Herman Adalist, president, Herman Adalist & Associates, Seattle, Washington

FRIDAY, March 8



1:30 p.m. to 5:00 p.m.

SYMPOSIUM ON STRUCTURAL MODELS

... Garden Rooms

SESSION CHAIRMAN: Frederic Roll, professor, Department of Civil Engineering, Towne School of Civil and Mechanical Engineering, University of Pennsylvania, Philadelphia

1:35

Structural Models in Australia — Henry J. Cowan, dean; and John S. Gero, professor, Department of Architectural Science, University of Sydney, Sydney, Australia

2:00

Discussion

2:05

Structural Models at the Cement and Concrete Association — Brian C. Best, research section leader; and R. A. Swann, staff, Cement and Concrete Association, London, England

2:30

Discussion

2:35

Structural Models in Portugal — Manuel Rocha, director; and staff, Laboratorio Nacional de Engenharia Civil, Lisbon, Portugal

3:00

Discussion

3:05

BREAK

3:20

PANEL DISCUSSION: The Role of Structural Models in Design and in Research —

CHAIRMAN: Richard N. White

* **Brian C. Best**, Cement and Concrete Association, London, England

* **Phil Ferguson**, Department of Civil Engineering, University of Texas, Austin, Texas

* **Jack Janney**, Wiss, Janney, Elstner and Associates, consulting and research engineers, Northbrook, Illinois

* **Manuel Rocha**, Laboratorio Nacional de Engenharia Civil, Lisbon, Portugal

* **Richard N. White**, School of Civil Engineering, Cornell University, Ithaca, New York

FRIDAY, March 8

CONCURRENT SESSIONS



1:30 p.m. to 5:00 p.m.

SYMPOSIUM ON LEGAL RESPONSIBILITIES IN CONCRETE CONSTRUCTION

1:30 **WORKSHOP III — CASE OUTLINE III:**
... Los Angeles Room

Parking Garage Failure — by ACI New Jersey Chapter

Moderator — Edward G. Nawy, professor, Department of Civil Engineering, Rutgers — the State University, New Brunswick, New Jersey

Attorney — Morton Stavis, principal, Stavis, Richardson, Koenigsberg & Rossmore, attorneys, Newark, New Jersey

Owner — George B. Rader, director of development, Housing Authority of the City of Newark, Newark, New Jersey

Architect — Bernard J. Grad, partner, Frank Grad & Sons, architects-engineers, Newark, New Jersey

Engineer — Donald Goodkind, president, Goodkind & O'Dea, consulting engineers, Montclair, New Jersey

Contractor — Robert N. Dentz, president, Diversified Road Bridge and Tunnel Construction Co., New Brunswick, New Jersey

Concrete Producer — Duncan Thecker, president, Duncan Thecker Associates, Asbury Park, New Jersey.

Materials Testing and Inspection — Jesse Wingerter, president, Jersey Testing Laboratories, Inc., Newark, New Jersey

3:30 **WORKSHOP SUMMATIONS BY CASE
MODERATORS Pacific Ballroom**

Case I — George E. Battey, Jr.

Case II — Holly A. Cornell

Case III — Edward G. Nawy

4:45 **Following Through** — Arthur R. Anderson, vice-president, ABAM Engineers, consulting engineers, Tacoma, Washington

LOS ANGELES CONVENTION COMMITTEE



- HONORARY CHAIRMAN** — Samuel Hobbs, secretary-treasurer, Southern California Chapter
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Coy Burnett, Monolith Portland Cement Co.
Raymond E. Davis, Sr., University of California
Ben C. Gerwick, Jr., Ben C. Gerwick Co.
J. P. Giles, American Cement Corp.

LADIES PROGRAM

HOSPITALITY SUITE Club Lounge

Monday, March 4

9:00 a.m. - 4:00 p.m.—Registration and Hospitality

Tuesday, March 5

9:00 a.m. - 12:00 —Registration and Hospitality
 12:30 p.m. —Complimentary Luncheon,
 Fashion Show, and Tour of
 Music Center

Wednesday, March 6

9:00 a.m. - 12:00 —Registration and Hospitality
 10:00 a.m. —Tour of Universal-Interna-
 tional Studios
 —Luncheon at Commissary
 2:00 p.m. —Ladies invited to opening of
 General Session
 6:30 p.m. —Cocktail Party
 "Concrete Mixer"

Thursday, March 7

9:00 a.m. - 12:00 —Hospitality
 12:15 p.m. —Awards Luncheon
 2:30 p.m. —Leisure Shopping at Century
 Plaza Hotel, Century City

Friday, March 8

9:00 a.m. - 12:00 —Hospitality

- R. A. Grant, California Portland Cement Co.
 L. I. Johnstone, Smith-Emery Co.
 Joe W. Kelly, University of California
 Ernst Maag, Consultant
 F. S. McGinnis, Jr., Southwestern Portland Cement Co.
 Walter Price, American Cement Corp.
 Lewis H. Tuthill, California Dept. of Water Resources
 George E. Warren, Southwestern Portland Cement Co.
- RECEPTION — W. C. Brophy, Southwestern Portland Cement Co.
 Steve Galezewski, Rockwin Engineers
 E. R. House, California Portland Cement Co.
 Carl Johnson, Johnson & Nielsen
 Henry Layne, Consultant
 Hugh McBride, Monolith Portland Cement Co.
 Dave Narver, Holmes & Narver
 Don Shaw, Associated General Contractors (AGC)
 Darrell Sluder, Ben F. Smith Co.
 Charles D. Wailes, Consultant
 Bill Wheeler, Wheeler & Gray
- CONSTRUCTION INDUSTRY — Ed Crawford, chairman, and Ben F. Smith Co.
 Olin E. Lesh, Robert E. McKee General Contractors, Inc.
 D. J. Roy, Oltmans Construction Co.
 N. Lindgren, Steed Bros.
 F. W. Drake, Hydracrete Pumping Co.
 J. R. Thurman, C. H. Leavell & Co.
- HOUSE COMMITTEE — George Battey, Jr., co-chairman, and Smith-Emery Co.
 Ray Osborne, co-chairman, and Osborne Laboratories
 Walt Dragaloski, Fontana Slag
 Richard Hames, Monolith Portland Cement Co.
 Fred Brown, Master Builders
 Herb Harger, Consolidated Rock Products
- PUBLICITY — Ross Adams, Portland Cement Association
- PHOTOGRAPHY — Glenn Switzer, Transit Mixed Concrete Co.
- ENTERTAINMENT— Joe Dobrowolski, California Portland Cement Co.
- LADIES' EVENTS — Mrs. J. Dobrowolski

TECHNICAL-EDUCATIONAL EXHIBITS

Be sure to visit each of these exhibits . . .
Discover for yourself the latest materials,
equipment, and services that are available
to help you in your endeavor . . . and, at the
same time, qualify for valuable door prizes.

Acme Highway Products Corporation
Adhesive Engineering Company
American Can Company
Atlas Prestressing Corporation
Bethlehem Steel Corporation
Calcium Chloride Institute
Civil Engineering Testing Equipment
Company
Crown Zellerbach Corporation
Edoco Technical Products, Inc.
Erico Products, Inc.
Fly Ash Group
Gateway Erectors, Inc.
Geodex International
Gunite Contractors Association
J. E. Goodman Sales, Limited
Hilti Fastening Systems
James Electronics, Inc.
Labrado Products
Master Builders
Owl Rock Products Company
David Pritzker Company
Protex Industries, Inc.
Sika Chemical Corporation
Sonoco Products Company
Symons Manufacturing Company
TESTlab Corporation
Textured Coatings of America
Union Carbide Corporation
United States Steel Corporation
Warner Construction Corporation
Western Concrete Structures Company, Inc.

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