# **PROGRAM**

1969 Fall Convention

AMERICAN CONCRETE INSTITUTE



November 2-7, 1969
PITTSBURGH HILTON
Pittsburgh, Pennsylvania

### MONDAY, November 3 (continued)

COMMITTEE		Meeting Room			
315	Detailing Reinforced Concrete (Revision of manual)	Structures Ballroom #3			
437	Strength Evaluation of Existin (Evaluation of bridges)	g Structures Chartiers B			
443	Concrete Bridge Design (Proposed design recommenda	itions) llroom # 2 Rear			
516	High Pressure Steam Curing (Subcommittee assignments)	King's Plaza			
533	Precast Panels (Reports) Ba	llroom #2 Front			
2:00 p.m. to 5:00 p.m.					
209	Subcommittee II, Creep and Shrinkage in Concrete (State-of-the-art reports) Rivers				
302	Concrete Floor Finishes (Standard draft)	King's Plaza			
315	Detailing Reinforced Concrete (Revision of manual)	Structures Ballroom #3			
345	Concrete Bridge Decks (Draft recommended practice)	Ballroom #4			
408	Bond Stress (Report in progress)	Brigade			
443	Concrete Bridge Design (Proposed design recommendations) Ballroom #2 Rear				
533 543		llroom #2 Front			
544	Fiber-Reinforced Concrete	King's Terrace			
	(State-of-the-art reports) 7:00 p.m.	Chartiers A			
200					
302	Concrete Floor Finishes (Standard draft)	King's Plaza			
315	Detailing Reinforced Concrete (Revision of manual)	Ballroom #3			
318	Subcommittee 20, Standard B	Rivers			
322	Structural Plain Concrete (Draft of standard)	Chartiers B			
340	Ultimate Strength Design Han	dbook Chartiers A			
512	Precast Structural Concrete (Draft of recommended practi	ce)			
543	Concrete Piles	Ballroom #4			
343	(Chapter II topics)	King's Terrace			

### TUESDAY, Nevember 4 9 e.m. to 12 noon

COMMITTEE		Meeting Room
_	Concrete 2000	Brigade
309	Consolidation of Concrete	Vinela Blaza
318	(Recommended practice) Standard Building Code /	King's Plaza
310	(Draft of proposed code)	Ballroom #4 /
351	Foundations for Equipment an	d Machinery
	(Outline program; subcommitt	tee
	assignments)	Chartiers A
443	Concrete Bridge Design (Proposed design recommenda	tions)
	В	allroom #2 Rear
503	Adhesives for Concrete	Chartier D
	(Draft guide)	Chartiers B
523	Insulating and Cellular Concre (Guide discussion; symposium	plans) Rivers
533	Precast Panels (Reports)	Ballroom #3
543	Concrete Piles	
	(Chapter II topics)	King's Terrace
	2:00 p.m. to 5:00 p	.m.
_	Board Committee on Educatio	n Chartiers B
_	Board Committee on Research	Traders
201	Durability of Concrete (Revision of report) Ba	llroom #2 Front
224	Cracking (Subcommittee repo	rts)
309	Consolidation of Concrete	llroom #1 Front
309	(Second draft; Recommended	practice)
		King's Plaza
311	Inspection of Concrete (Upgrading manual)	Ballroom #3
318	Standard Building Code	Dain com ro
310	(Draft of proposed code)	Ballroom #4
332	Residential Concrete Work	u
		allroom #2 Rear
444	Models of Concrete Structures (Subcommittee assignments)	Rivers
515	Coatings for Concrete (Reports	
532	Lightweight Concrete Masonry	V
	(Thermal transmission coeffici	ent) Brigade
543	Concrete Piles (Chapter II topics)	King's Terrace
		King's Terrace
309	7:00 p.m. Consolidation of Concrete	
309	(Second draft; recommended )	practice)
-	The second second	King's Plaza
349	Criteria for Nuclear Containm	ent Vessels King's Terrace
426	(Design criteria draft) Shear and Diagonal Tension	King's Terrace
	(Subcommittee reports)	Brigade

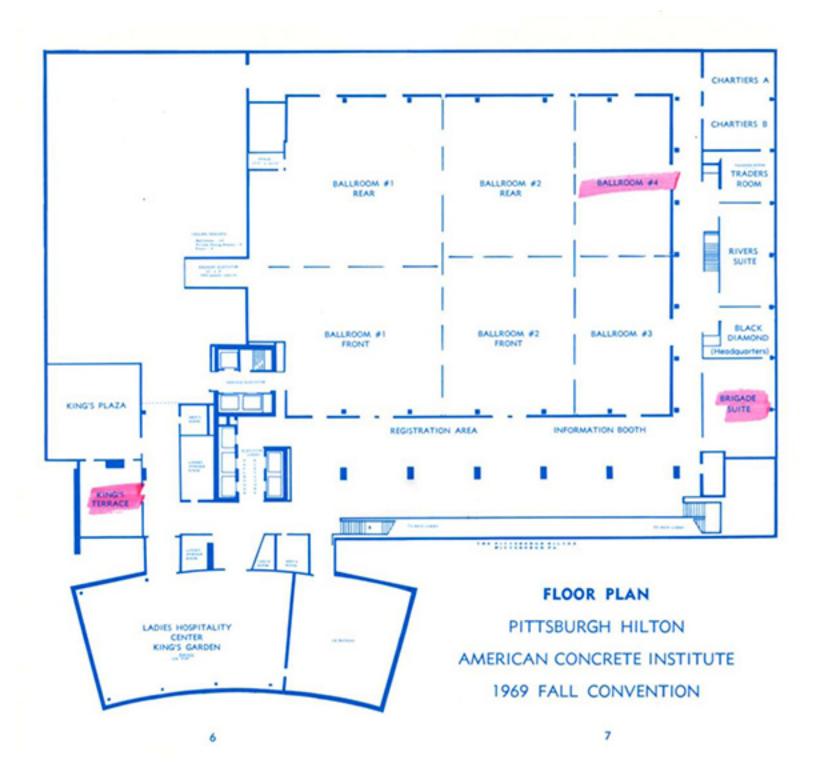
### WEDNESDAY, Nov. 5 9 e.m. to 12 noon

COMMITTEE		Meeting Room	
117	Tolerances (State-of-the-art report)	Chartiers B	
119			
212	Admixtures		
213		King's Plaza	
	(Subcommittee reports; 1970 symposium) Ballroom #2 Front		
223	(Current research)	Ballroom #3	
304	Measuring, Mixing, Transporting and Placing (Revision of recommended practice)		
318		King's Terrace Ballroom #4	
348	Structural Safety		
439	(Subcommittee Č) High-Strength Reinforcement	Traders in Concrete	
	(Report on present practice)  Ballroom #1 Front		
444			
	2:00 p.m. to 5:00 p		
_	Board Committee on Members	hip	
213	Recruitment Traders  Lightweight Aggregate Concretes (Subcommittee reports — 1970 symposium)  Ballroom #2 Front		
223	Expansive Cement Concretes		
308	(Current research) Curing Concrete	Ballroom #3	
318	(Draft of recommended practic Standard Building Code	ce) Rivers Ballroom #4	
347	Formwork for Concrete Bal	llroom #1 Front	
348	Structural Safety (Probabilistic design concepts a load factors)	and Chartiers A	
350	Sanitary Engineering Structur (begins at 1:00 p.m.)	es	
352	Joints and Connections in Mor	Chartiers B	
	Structures (Recommendations) B	allroom #2 Rear	
442	Response of Buildings to Late (Draft report and symposium)	ral Forces Brigade	
531	Concrete Masonry Structures (Current research)	King's Plaza	
7:00 p.m.			
531	Concrete Masonry Structures (Current research)	King's Plaza	
	(Current research)	King's Plaza	

### THURSDAY, November 6 9 a.m. to 12 noon

COMMITTEE Meeting Room					
114	Research and Development (R and D projects)	King's Plaza			
118	Use of Computers (Programming guide — 1970	symposium) Rivers			
301	Specifications for Structural (Revision of ACI 301-66)	Concrete Ballroom #3			
336	Combined Footings and Pier (Report)	Foundations Brigade			
348	Structural Safety (Probabilistic design concepts and load factors)  Ballroom #1 Front				
354	Design Practice	Chartiers B			
438		allroom #2 Front			
441	Concrete Columns (Current research)	Ballroom #4			
517	Low Pressure Steam Curing (Recommended practice)	Ballroom #2 Rear			
2:00 p.m. to 5:00 p.m.					
301	Specifications for Structural (Revision of ACI 301-66)	Concrete Ballroom #3			
305	Hot Weather Concreting (Final draft and annotated bibliography) King's Terrace				
350	Sanitary Engineering Structu	ires			
	(Chapters 3 and 4 of report)	Chartiers B			
421	Reinforced Concrete Slabs (Subcommittee reports)	Ballroom #4			
438	Torsion (Current research) B	allroom #2 Front			
506	Shotcreting (Second draft of specifications	s) Brigade			
6:30 p.m.					
	"Concrete Mixer" - so	cial hour			

"Concrete Mixer" - social hour . . . Ballroom #1



FRIDAY, Nov. 7, 1969 9:00 c.m.-12:00 noon

### GENERAL SESSION

CHAIRMAN: Deane W. Hillegass, president, ACI Pittsburgh Area Chapter, and district manager, Sika Chemical Corporation, Pittsburgh, Pennsylvania

1. Proposed ACI Standard:

"Specifications for Cast-in-Place Nonreinforced Concrete Pipe" by Committee 346. Proposed standard published in April 1969 JOURNAL; presented by Carl R. Wilder, member of Committee 346 and manager, Public Works and Transportation Section, Portland Cement Association, Skokie, Illinois

 "Shrinkage-Compensating Concrete in Walls" by Donald W. Pfeifer, manager, Concrete Products Research Section, Research and Development Division, Portland Cement Association, Skokie,

Illinois

 "CETAC — A Plan to Fill the Middle Level Manpower Gap" by Ellis S. Vieser, chairman New Jersey Civil Engineering Technology Advisory Council and marketing manager, Duncan Thecker Associates, Asbury Park, New Jersey, and Paul J. Brienza, managing director, Building Contractors Association of New Jersey, Newark, New Jersey

 "Long-Span Structures in San Paulo" by J. C. deFigueiredo Ferraz, professor and structural engineer, Construction Department, Escola Politecnica, University of San Paulo, San Paulo,

Brazil

 "Co-op City: One Million Cubic Yards of Concrete" by Nicholas Farkas, Farkas, Barron & Partners, Consulting Engineers, New York, New York

### Proposed ACI Standard: Specifications for Cast-in-Place Nonreinforced Concrete Pipe By ACI Committee 346

These specifications are a reference standard which the engineer or architect may make applicable to any cast-in-place pipe project by citing them in the project specifications. Individual chapters or sections should not be copied into project specifications since their meanings will be changed by taking them out of context.

The specifications need to be supplemented by designating or specifying individual project requirements. A list is provided indicating places in these specifications and items that will require, or may require, specific treatment by the specification writer.

### CONCURRENT SESSION

FRIDAY, Nov. 7

2:00 - 5:00 p.m.

### DESIGN CRITERIA FOR CONCRETE NUCLEAR REACTOR CONTAINMENT STRUCTURES by ACI Committee 349

CHAIRMAN: Paul E. Mast, chairman, ACI Committee 349

- "Mission of ACI 349 and Liaison with ASCE, ASME and AEC" by Paul E. Mast, manager, Design Research Section, Portland Cement Association, Skokie, Illinois
- "Design Philosophy" by Myer Bender, director, General Engineering Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, and R. Seidensticker, manager of quality assurance, Argonne National Laboratory, Argonne, Illinois
- "Design Criteria and Methods of Analysis" by Darrel W. Halligan, chief structural engineer, Power and Industrial Division, Bechtel Corporation, San Francisco, California, and T. Y. Lin, professor, Department of Civil Engineering, University of California, Berkeley, California
- "Material Performance Requirements for Structure and Liner" by Eric C. Smith, superintendent, Structures and Services Branch, Atomic Energy of Canada, Sheridan Park, Ontario, Canada
- "Documentation and Testing Requirements Prior to Operation" by Hans Lorenz and Don K. Croneberger, respectively, chief structural engineer and structural engineer, Gilbert Associates, Reading, Pennsylvania.

### CONCURRENT SESSION

FRIDAY, Nov. 7

2:00-5:00 p.m.

### RESEARCH SESSION ACI Committee 115

CHAIRMAN: Adrian Pauw, chairman ACI Committee

115, acting dean and professor of civil engineering, College of Engineering, University of Missouri-Columbia, Co-

lumbia, Missouri

SECRETARY: J. H. Walker, secretary ACI Committee 115, vice-president for research and development, Portland Cement Association, Skokie, Illinois

- A Progress Report from Committee 114 by Richard C. Mielenz, chairman, ACI Committee 114 and vice-president for product development, Master Builders, Cleveland, Ohio
- "Sulfate Resistance of Asbestos-Cement Pipe Specimens" by S. B. Helms, research engineer, Research Laboratory, Lehigh Portland Cement Company, Coplay, Pennsylvania
- "Accelerated Strength Tests" by Robert R. Larason, graduate student, and T. W. Brockenbrough, assistant dean; Civil Engineering Department, College of Engineering, University of Delaware, Newark, Delaware
- "Ultrasonic Measurements for Detection of Microcrack Propagation" by S. P. Shah, visiting associate professor, Department of Civil Engineering, Massachusetts Institute of Technology, Cambridge Massachusetts, and S. Chandra, visiting assistant professor, University of Illinois at Chicago Circle, Chicago, Illinois
- "Creep of Maturing Cement Paste" by J. Timusk, associate professor, Department of Civil Engineering, University of Toronto, Toronto, Ontario, Canada, and R. S. Ghosh, Research Division, Hydro Electric Power Commission of Ontario, Toronto

### CONCURRENT SESSION

FRIDAY, Nov. 7

2:00-5:00 p.m.

#### RESEARCH SESSION (continued)

- "Study of Composite Beams with Lightweight Concrete Slabs" by James W. Baldwin, Jr., professor and chairman, and J. B. McGarraugh, assistant professor, Department of Civil Engineering, University of Missouri-Columbia, Columbia, Missouri
- "Nature of Bond Splitting in Reinforced Concrete" by James Chinn, professor of civil engineering, University of Colorado, Boulder, Colorado; P. S. Harvill, Jr., tenure associate professor of engineering mechanics, U.S. Air Force Academy, Colorado; and Ernest C. Harris, senior staff engineer, Ken R. White Company, Denver, Colorado
- "Composite Columns—Preliminary Report on the State of the Art" by Richard W. Furlong, associate professor, Department of Civil Engineering, University of Texas, Austin, Texas
- "Development of an Integrated Building System for Hospitals" by Richard S. Levine, associate professor of architecture, and Hans Gesund, professor of structural engineering; University of Kentucky, Lexington, Kentucky
- "Prestressed Concrete Beams under Combined Bending and Torsion" by H. V. S. GangaRao, assistant professor, Department of Civil Engineering, West Virginia University, Morgantown, West Virginia, and Paul Zia, professor and associate head, Civil Engineering Department, North Carolina State University, Raleigh, North Carolina

### Pittsburgh HOSTESS COMMITTEE CHAIRMAN Mrs. Robert A. Anderson

WELCOME . . .

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We're glad you are able to attend and hope that your stay is pleasant and enjoyable. Our committee has attempted to arrange a program which you will enjoy while leaving ample time for individual exploration of our lovely city and its many fine shops and restaurants.

The Ladies Hospitality Center is in the King's Garden, and each day, Monday through Thursday, coffee and Danish will be available at 9:30 a.m. and 3:00 p.m. Also each day we have planned an exciting program for your entertainment. Ladies, Pittsburgh's Golden Triangle awaits . . . .

#### Monday, November 3

9:00 a.m. 9:30 a.m. Registration

Juice, Coffee & Danish

Herbert D. Ferguson will present "A Picture Fantasy of Pittsburgh." Mr. Ferguson utilizes 2:30 p.m.

three synchronized slide projectors, tope recorders and screens to present a fascinating introduction to Pittsburgh today!

### Tuesday, November 4

9:00 a.m. Registration

9:30 a.m. Juice, Coffee & Danish

Luncheon, followed by Harriet Woodcock in 12:30 p.m. her "One-Star Playhouse." A thoroughly en-

tertaining presentation by a most talented

performer.

Coffee & Danish 3:00 p.m.

#### Wednesday, November 5

9:00 a.m. Registration

9:30 o.m. Juice, Coffee & Danish

Beginning with a visit to Point Park and the historic Fort Duquesne, then a breathtaking ride up the Mt. Washington incline for a 10:30 a.m.

panaramic view of Pittsburgh's fabulous "Golden Triangle" and climaxed by a visit to the world famous Nationality Rooms at

the University of Pittsburgh.

#### Thursday, November 6

9:00 a.m. 9:30 a.m. Registration

Juice, Coffee & Danish

Luncheon, Top of the Towers Restaurant, with Fashion Show Cocktail Hour. 12:30 p.m.

3:00 p.m. Coffee & Danish

The Concrete Mixer in the Hilton, Ballroom 6:30 p.m.

#1. Attend with your husband.

### Friday, November 7 - ALL DAY IS YOUR DAY.

The Ladies Hospitality Center will be open with juice, coffee and Danish, being served at 9:30 a.m. and 3:00 p.m.

PITTSBURGH CONVENTION COMMITTEE

#### General Chairman

Bartlett L. Couch Pittsburgh Testing Laboratory P.O. Box 1646 Pittsburgh, Pennsylvania 15230

#### Finance

Harold L. Wright Linco Supply Company Parkway West Pittsburgh, Pennsylvania 15235

### Publicity

Andrew T. Fertal Master Builders 119 Federal Street Pittsburgh, Pennsylvania 15212

and

Professor John E. Campbell 139 Maryland Drive Carnegie, Pennsylvania 15106

#### Ladies Program

Mrs. Robert A. Anderson c/o Robert A. Anderson Shufflin & Green 210 S. Monroe Street Butler, Pennsylvania 16001

This convention would not have been possible without the complete cooperation and dedicated work of the officers and members of the Pittsburgh Area Chapter of the American Concrete Institute.

## European Tour Set for 1970

## SYSTEMS BUILDING IN AN INDUSTRIALIZED SOCIETY

An All-Inclusive
Post-Convention Seminar-Technical Tour
April 18 - May 9, 1970

London, England Milan, Italy Munich, Germany Frankfort, Germany Copenhagen, Denmark Paris, France

The following schedule is representative of the plans we have made:

We meet with the Cement and Concrete Association in London where papers will be presented on Systems Design, Construction Methods, Economics and Costs, and Management.

Following the seminar in each city, construction site tours are scheduled along with visits to Systems Building factories and ample time provided for study and discussion.

be visiting the birthplace of Shakespeare, Stratfordon-Avon; the lovely isle Isola Bella, in the Northern Lakes region near Milan; Oberammergaus, near Frankfort, scene of the world-famous passion play; to Odense, where Hans Christian Andersen was born; to Copenhagen; and while in Paris, side trips to Versailles and Fontainebleau.

For further information regarding this complete package seminar tour, write American Concrete Institute, 22400 West Seven Mile Road, Detroit, Michigan 48219.