



# **VANCOUVER PROGRAM**

**1975 FALL  
CONVENTION  
NOV. 2-7**



**AMERICAN CONCRETE INSTITUTE**

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P.O. Box 19150  
Detroit, Michigan 48219



# PROGRAM FALL CONVENTION

November 2-7, 1975  
Vancouver, British Columbia

Registration fees cover attendance at all ACI technical and educational committee meetings, general session, and symposia. They do not cover the educational seminars on Tuesday for which there is an additional charge.

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## SCHEDULE

### SUNDAY, NOVEMBER 2

2:00 p.m. - 6:00 p.m.  
Administrative committee meetings

### MONDAY, NOVEMBER 3

8:30 a.m. - 9:30 p.m.  
Administrative, technical, and educational committee meetings

### TUESDAY, NOVEMBER 4

8:30 a.m. - 9:30 p.m.  
Technical and educational committee meetings

8:30 a.m. - 12:30 p.m.  
Formwork Design Workshop (registration fee: \$20.00)

9:00 a.m. - 5:30 p.m.  
Training Responsibilities of Level III Inspection Engineers for Nuclear Reactors and Containments Seminar (registration fee: \$40.00 Members, \$60.00 Nonmembers)

### WEDNESDAY, NOVEMBER 5

8:30 a.m. - 6:00 p.m.  
Administrative, technical, and educational committee meetings

9:00 a.m. - 12:00 noon  
Portland Cement Plastering — Problems and Benefits (Committee 524)

9:00 a.m. - 5:00 p.m.  
The Building of the CN Tower

2:00 p.m. - 5:00 p.m.  
Research on Plain and Reinforced Concrete (Committee 115)

4:00 p.m. - 6:00 p.m.  
Effective Committee Chairmanship Workshop (no fee)

6:30 p.m. - 8:00 p.m.  
Concrete Mixer

### THURSDAY, NOVEMBER 6

8:15 a.m. - 12:00 noon  
General Session

2:00 p.m. - 5:00 p.m.  
Concrete Guideways (Committee 358)

2:00 p.m. - 5:00 p.m.  
Avianca Building Fire

2:00 p.m. - 5:00 p.m.  
Cold Regions Concreting Symposium (Committee 306)

2:00 p.m. - 9:30 p.m.  
Technical and educational committee meetings

### FRIDAY, NOVEMBER 7

8:30 a.m. - 12:30 p.m.  
Technical committee meetings

9:00 a.m. - 12:00 noon  
Design and Construction of Oceanic Plaza Office Tower

9:00 a.m. - 12:00 noon  
Limit Design of Slabs: Code Considerations (Committee 421)

## SPECIAL EVENTS

**Publications Display** . . . in the Chehalis Room. All the current ACI publications are there. Orders are taken at the Registration Desk which is also in the Chehalis Room.

**Education at the Convention** . . . One half-day workshop, one full-day seminar, and a two-hour workshop will be presented. Each of the Tuesday programs will require a separate registration fee, as noted below, which is payable at the ACI Registration Desk. The two-hour workshop on Wednesday is included in the convention registration fee.

Since enrollment is limited, early registration is advised.

**Formwork Design Workshop** . . . 8:30 a.m. - 12:30 p.m., Tuesday, November 4, in the Thompson room. Designers, engineers, and constructors concerned with the safety of formwork will benefit from attendance at this program. Registration fee is \$20.00

**Training Responsibilities of Level III Inspection Engineers for Nuclear Reactors and Containments** . . . 9:00 a.m. - 5:30 p.m., Tuesday, November 4, in the Stanley room. Certified Level III Inspection Engineers as well as engineers preparing for certification should attend this workshop. Lunch is included. Registration fee is \$40.00 for ACI Members; \$60.00 for Nonmembers.

**Effective Committee Chairmanship Workshop** . . . 4:00 p.m. - 6:00 p.m., Wednesday, November 5, in the Mackenzie room. The purpose of this workshop is to increase the productive efforts of ACI committees, as well as attendance at committee meetings. There is no registration fee for this workshop.

**"Concrete Mixer"** . . . Wednesday, November 5, 6:30 to 8:00 p.m., in the Ballroom. Please wear your badge.

### Breakfasts (by invitation only):

Wednesday, November 5, 7:00 a.m.

breakfast for program participants in the sessions on Portland Cement Plastering - Problems and Benefits, The Building of the CN Tower, and Research on Plain and Reinforced Concrete. Chairman room.

Thursday, November 6, 7:00 a.m.

breakfast for program participants in the General Session and the sessions on Concrete Guideways, Avianca Building Fire, and Cold Regions Concreting. Chairman room.

Friday, November 7, 7:00 a.m.

breakfast for program participants in the sessions on Design and Construction of the Oceanic Plaza Office Tower and Limit Design of Slabs: Code Considerations. Chairman room.

## COMMITTEE MEETINGS

Be sure to check the bulletin board for last minute changes or added meetings.

COMMITTEE

Meeting Room

SUNDAY, NOVEMBER 2

2:00 p.m. - 6:00 p.m.

--- Technical Activities Committee

Cowichan

## Monday

NOVEMBER 3

8:30 a.m. - 10:30 a.m.

---	Board Committee on International Activities	Coquitlam
---	Planning Committee	Board
---	Educational Activities Committee	Director
---	Technical Activities Committee	Cowichan
---	Chapter Activities Committee	Discovery
212	Admixtures for Concrete	Prospect
306	Cold Weather Concreting	Chairman
351	Foundations for Equipment and Machinery	Park
358	Concrete Guideways	Thompson
360	Design of Slabs on Grade	President
531	Masonry Structures	Stanley
547	Refractory Concrete	Ferguson

10:30 a.m. - 12:30 p.m.

---	Board Committee on International Activities	Coquitlam
---	Educational Activities Committee	Director
---	Technical Activities Committee	Cowichan
---	Chapter Activities Committee	Discovery
212	Admixtures for Concrete	Prospect
306	Cold Weather Concreting	Chairman
318	Subcommittee B, Concrete Quality, Mixing, and Placement	Thompson
340	Strength Design Handbook	Mackenzie
344	Circular Prestressed Concrete Structures	Fraser
351	Foundations for Equipment and Machinery	Park
351	Subcommittee 4, Special Equipment and Machinery	Board
360	Design of Slabs on Grade	President
531	Masonry Structures	Stanley
547	Refractory Concrete	Ferguson

12:30 p.m. - 2:00 p.m.

---	Institute and Industry Advancement Committee	Contact R. Wilde
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2:00 p.m. - 4:00 p.m.

---	Educational Activities Committee	Director
---	General Activities Committee	Coquitlam
223	Expansive Cement Concrete	Cowichan
318	Subcommittee E, Analysis and Strength Requirements	Thompson
318	Subcommittee N, Earthquake Resistant Design Requirements	Board
340	Strength Design Handbook	Mackenzie
344	Circular Prestressed Concrete Structures	Fraser
350	Concrete Sanitary Structures	President

351	<b>Subcommittee 1, Impact Machinery</b>	Park
426	Shear and Diagonal Tension	Chairman
503	Adhesives for Concrete	Prospect
515	Coatings for Concrete	Discovery
531	Masonry Structures	Stanley
547	Refractory Concrete	Ferguson
<b>4:00 p.m. - 6:00 p.m.</b>		
---	<b>Educational Activities Committee</b>	Director
---	<b>General Activities Committee</b>	Coquitlam
223	Expansive Cement Concrete	Cowichan
318	<b>Subcommittee E, Analysis and Strength Requirements</b>	Thompson
318	<b>Subcommittee G, Flexure and Axial Loads</b>	Ferguson
318	<b>Subcommittee N, Earthquake Resistant Design Requirements</b>	Board
340	Strength Design Handbook	Mackenzie
344	Circular Prestressed Concrete Structures	Fraser
350	Concrete Sanitary Structures	President
351	<b>Subcommittee 3, Static Equipment</b>	Park
426	Shear and Diagonal Tension	Chairman
503	Adhesives for Concrete	Prospect
515	Coatings for Concrete	Discovery
531	Masonry Structures	Stanley
<b>7:30 p.m. - 9:30 p.m.</b>		
318	<b>Subcommittee A, General Building Code</b>	Director
318	<b>Subcommittee C, Formwork, Embedded Pipes, and Construction Joints</b>	Cowichan
318	<b>Subcommittee G, Flexure and Axial Loads</b>	Ferguson
318	<b>Subcommittee H, Shear and Torsion</b>	Stanley
318	<b>Task Group on Plain Concrete</b>	Coquitlam
318	<b>Task Group on Progressive Collapse</b>	Park
318	<b>Task Group on Code Simplification</b>	Board
428	Limit Design	President
516	High Pressure Steam Curing	Discovery
E-702	Designing Concrete Structures	Prospect

## Tuesday

NOVEMBER 4

<b>8:30 a.m. - 10:30 a.m.</b>		
---	<b>Specifications Review Committee</b>	Prospect
211	<b>Subcommittee 7, Mass Concrete Mixture Proportioning</b>	Discovery
304	Measuring, Mixing, Transporting, and Placing Concrete	President
315	Detailing Reinforced Concrete Structures	Chairman
318	Standard Building Code	Fraser
423	Prestressed Concrete	Mackenzie
439	Steel Reinforcement	Park
441	Reinforced Concrete Columns	Coquitlam

517	Accelerated Curing of Concrete at Atmospheric Pressure	Cowichan
547	Refractory Concrete	Ferguson
<b>8:30 a.m. - 12:30 p.m.</b>		
<b>FORMWORK DESIGN WORKSHOP (Sponsored by ACI Committee E-702) See Page 11</b>		
Thompson		
<b>9:00 a.m. - 5:30 p.m.</b>		
<b>TRAINING RESPONSIBILITIES OF LEVEL III INSPECTION ENGINEERS FOR NUCLEAR REACTORS AND CONTAINMENTS (Sponsored by ACI Committee E-601)</b>		
Stanley		
<b>10:30 a.m. - 12:30 p.m.</b>		
---	<b>Specifications Review Committee</b>	Prospect
209	<b>Subcommittee III (Creep and Shrinkage in Concrete)</b>	President
211	Proportioning Concrete Mixes	Discovery
214	Evaluation of Strength Tests	Coquitlam
222	Corrosion of Metals in Concrete	Board
315	Detailing Reinforced Concrete Structures	Chairman
318	Standard Building Code	Fraser
423	Prestressed Concrete	Mackenzie
517	Accelerated Curing of Concrete at Atmospheric Pressure	Cowichan
547	Refractory Concrete	Ferguson
<b>12:30 p.m. - 2:00 p.m.</b>		
---	<b>Information Services Committee</b>	Contact
R. Wilde		
<b>1:00 p.m. - 6:00 p.m.</b>		
303	Architectural Concrete	Mai Tai
<b>2:00 p.m. - 4:00 p.m.</b>		
201	Durability of Concrete	Discovery
207	Mass Concrete	Park
209	<b>Subcommittee I (Creep and Shrinkage in Concrete)</b>	President
301	Specifications for Structural Concrete	Chairman
318	<b>Subcommittee M, Shells and Folded Plates</b>	Thompson
408	Bond Stress	Mackenzie
421	Reinforced Concrete Slabs	Prospect
517	Accelerated Curing of Concrete at Atmospheric Pressure	Cowichan
523	Insulating and Cellular Concretes	Fraser
547	Refractory Concrete	Ferguson
549	Ferrocement	Director
<b>4:00 p.m. - 6:00 p.m.</b>		
201	Durability of Concrete	Discovery
207	Mass Concrete	Park
224	Cracking	Ferguson
301	Specifications for Structural Concrete	Chairman
318	<b>Subcommittee K, Precast and Composite Concrete</b>	President
318	<b>Subcommittee M, Shells and Folded Plates</b>	Thompson
408	Bond Stress	Mackenzie
421	Reinforced Concrete Slabs	Prospect
435	Deflections of Structures	Cowichan
<b>7:30 p.m. - 9:30 p.m.</b>		
---	<b>TAC Ad Hoc Committee on Progressive Collapse</b>	Board

103	Monographs	Coquitlam
116	Nomenclature	Park
213	Structural Lightweight Concrete	Discovery
224	Cracking	Ferguson
318	<b>Subcommittee K, Precast and Composite Concrete</b>	President
318	<b>Task Group on Systems Building</b>	Thompson
325	Concrete Pavements	Prospect
348	Structural Safety	Cowichan
E-701	Materials for Concrete Construction	Chairman

## Wednesday

NOVEMBER 5

		<b>8:30 a.m. - 10:30 a.m.</b>
118	Use of Computers	Coquitlam
120	History of Concrete	Prospect
224	Cracking	Ferguson
305	Hot Weather Concreting	President
318	<b>Subcommittee D, Details and Development of Reinforcement</b>	Board
318	<b>Subcommittee F, Serviceability</b>	Chairman
352	Joints and Connections	Mackenzie
442	Response of Buildings to Lateral Forces	Cowichan
506	Shotcreting	Discovery
E-703	Concrete Construction Practices	Director

**9:00 a.m. - 12:00 noon**

### PORTLAND CEMENT PLASTERING - PROBLEMS AND BENEFITS (Sponsored by ACI Committee 524) See Page 13

Stanley/Park

### THE BUILDING OF THE CN TOWER (first session) See Page 14

Fraser

---	<b>Board of Direction</b>	Thompson
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**10:30 a.m. - 12:30 p.m.**

118	Use of Computers	Coquitlam
305	Hot Weather Concreting	President
318	<b>Subcommittee D, Details and Development of Reinforcement</b>	Board
318	<b>Subcommittee F, Serviceability</b>	Chairman
438	Torsion	Prospect
442	Response of Buildings to Lateral Forces	Cowichan
506	Shotcreting	Discovery
544	Fiber Reinforced Concrete	Ferguson
E-703	Concrete Construction Practices	Director

**2:00 p.m. - 4:00 p.m.**

---	<b>Board of Direction</b>	Thompson
118	Use of Computers	Coquitlam
209	Creep and Shrinkage in Concrete	Cowichan
309	Consolidation of Concrete	President
311	Inspection of Concrete	Chairman

318	Standard Building Code	Discovery
345	Concrete Bridge Construction and Maintenance	Director
524	Portland Cement Plastering	Board
544	Fiber Reinforced Concrete	Ferguson
E-601	Seminars and Workshops	Prospect

**2:00 p.m. - 5:00 p.m.**

### THE BUILDING OF THE CN TOWER (second session)

See Page 14 Fraser

### RESEARCH ON PLAIN AND REINFORCED CONCRETE

(Sponsored by ACI Committee 115) See Page 15

Stanley/Park

**4:00 p.m. - 6:00 p.m.**

### EFFECTIVE COMMITTEE WORKSHOP (Sponsored by

ACI Educational Activities Committee) See Page 16

---	<b>Board of Direction</b>	Mackenzie
118	Use of Computers	Thompson
215	Fatigue of Concrete	Coquitlam
302	Concrete Floor Finishes	Cowichan
309	Consolidation of Concrete	Ferguson
311	Inspection of Concrete	President
318	Standard Building Code	Chairman
318	Standard Building Code	Discovery
345	Concrete Bridge Construction and Maintenance	Director
444	Models of Concrete Structures	Board
E-601	Seminars and Workshops	Prospect

## Thursday

NOVEMBER 6

**8:15 a.m. - 12:00 noon**

### GENERAL SESSION See Page 17

Ballroom

**2:00 p.m. - 4:00 p.m.**

---	<b>Standards Board</b>	Board
---	<b>Convention Committee</b>	Prospect
311	Inspection of Concrete	Chairman
318	Standard Building Code	Discovery
359	<b>Working Group on General Requirements</b>	Cowichan
359	<b>Subgroup on Inservice Inspection</b>	President
359	<b>Working Group on Quality Assurance</b>	Thompson
359	<b>Working Group on Concrete Reactor Vessels</b>	Ferguson
549	Polymers in Concrete	Coquitlam
E-801	Student Concrete Projects	Director

**2:00 p.m. - 5:00 p.m.**

### CONCRETE GUIDEWAYS (Sponsored by ACI Committee 358) See Page 18

Mackenzie

### AVIANCA BUILDING FIRE See Page 19

Fraser

### COLD REGIONS CONCRETING SYMPOSIUM (Sponsored by ACI Committee 306) See Page 20

Stanley/Park

**4:00 p.m. - 6:00 p.m.**

---	<b>Convention Committee</b>	Prospect
318	Standard Building Code	Discovery
359	<b>Working Group on General Requirements</b>	Cowichan
359	<b>Subgroup on Inservice Inspection</b>	President

359	Working Group on Quality Assurance	Thompson
359	Working Group on Concrete Reactor Vessels	Ferguson
512	Precast Structural Concrete	Board
548	Polymers in Concrete	Coquitlam
E-801	Student Concrete Projects	Director
		<b>7:30 p.m. - 9:30 p.m.</b>
120	History of Concrete	Prospect
308	Curing Concrete	Director
318	Standard Building Code	Discovery
359	Working Group on General Requirements	Cowichan
359	Subgroup on Inservice Inspection	President
359	Working Group on Quality Assurance	Thompson
359	Working Group on Concrete Reactor Vessels	Ferguson
504	Joint Sealants	Chairman

## Friday

NOVEMBER 7

		<b>8:30 a.m. - 10:30 a.m.</b>
114	Research and Development	President
359	Concrete Components for Nuclear Reactors	Discovery
443	Concrete Bridge Design	Coquitlam
546	Repair of Concrete	Chairman
		<b>9:00 a.m. - 11:00 a.m.</b>
117	Tolerances	Cowichan
		<b>9:00 a.m. - 12:00 noon</b>
	<b>DESIGN AND CONSTRUCTION OF OCEANIC PLAZA</b>	
	OFFICE TOWER See Page 21	Fraser
	<b>LIMIT DESIGN OF SLABS: CODE CONSIDERATIONS</b>	
	(Sponsored by ACI Committee 421)	
	See Page 21	Stanley/Park
		<b>10:30 a.m. - 12:30 a.m.</b>
359	Concrete Components for Nuclear Reactors	Discovery
443	Concrete Bridge Design	Coquitlam
546	Repair of Concrete	Chairman

## ACI EDUCATIONAL SEMINARS SCHEDULE FOR FALL, 1975

### November 13-14

Strength Design and the ACI Code, 318-71  
Kansas City, Missouri

### December 4-5

Concrete in the Sea  
Mexico City, Mexico

## Tuesday

November 4

8:30 a.m. - 12:30 p.m.

### FORMWORK DESIGN WORKSHOP

sponsored by ACI Committee E-702

*Thompson*

Design and construction problems associated with a multi-story concrete building will constitute the workshop activity. A team of instructors will assist in solving some problems emphasizing safety and construction efficiency.

Enrollment is limited so early registration is advised. **Registration fee is \$20.00.**

#### PROGRAM

**Moderator:** William J. Wilhelm, chairman, ACI Committee E-702, and chairman, Department of Civil Engineering, West Virginia University, Morgantown, West Virginia

8:30 a.m. - 8:45 a.m.

#### Introduction

8:45 a.m. - 9:30 a.m.

#### Selection of Framing System

Economy of Materials

Economy of Placing and Forming

Instructor: James R. Cagley, Martin & Cagley, Washington, D.C.

9:30 a.m. - 10:30 a.m.

#### Selection of Forming System

Construction Schedule

Construction of Formwork

Shoring and Reshoring

Instructor: Carl Guse, Miller Davis Company, Melrose Park, Illinois

10:30 a.m. - 10:45 a.m.

#### Stretch break

10:45 a.m. - 11:45 a.m.

#### Formwork Design

Form Loads

Proper Loads for Shoring and Reshoring

Design of Shoring and Reshoring

Instructor: James P. Hanagan, Donley's, Cleveland, Ohio

11:45 a.m. - 12:30 p.m.

#### Discussion

#### Notes

9:00 a.m. - 5:30 p.m.

## TRAINING RESPONSIBILITIES OF LEVEL III INSPECTION ENGINEERS FOR NUCLEAR RE- ACTORS AND CONTAINMENTS

sponsored by ACI Committee E-601

*Stanley*

The ACI Code 359-74 requires that a candidate for certification must satisfactorily pass the Level III examination administered by the National Council of Engineering Examiners. The examination is one which evaluates the candidate's technical knowledge and ability. However, training, evaluation, and certification of Level I and II personnel will probably constitute more than 50% of Level III job responsibilities. The Code states that the Level III Inspection engineer must be capable of organizing and reporting results and also certifying the validity of results.

This workshop will help the participants to become better teachers and to be more effective in evaluating employee performance.

Objective of the Workshop: Each participant will

1. Be able to prepare training objectives;
2. Be able to prepare training outlines.

Enrollment is limited so early registration is advised. **Registration fee is \$40.00 for ACI Members, \$60.00 for nonmembers.**

### PROGRAM

9:00 a.m. - 9:15 a.m.

#### Introductions and announcements

9:15 a.m. - 10:30 a.m.

#### Preparing for the NCEE Exam

Code responsibilities, exam format, typical questions, references; to prepare yourself

10:45 a.m. - 12:00 noon

#### Preparing Your Training Objectives

Determining instructional objectives; how to determine if objectives are achieved; testing

12:00 noon - 1:00 p.m.

#### Lunch

1:00 p.m. - 2:00 p.m.

#### Analyzing the Inspection Functions

Making job analyses and job descriptions

2:00 p.m. - 2:45 p.m.

#### Translating Job Descriptions into Job Training

Determining content; references; organization; visual aids; on-the-job training

3:00 p.m. - 4:00 p.m.

#### Evaluating Your Training Effectiveness

Communication; audience interest; self-evaluation techniques

4:00 p.m. - 5:00 p.m.

#### Preparing Training Outlines

Small groups are to work in preparing a training course outline and organizing course content

5:00 p.m. - 5:30 p.m.

#### Reporting, Reviewing, Evaluating

Have we accomplished our objectives? What remains to be done? What should we have done that we didn't do?

5:30 p.m.

#### Adjournment

# Wednesday

November 5

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

## PORTLAND CEMENT PLASTERING - PROBLEMS AND BENEFITS

sponsored by ACI Committee 524

*Stanley/Park*

**Session Chairman:** Clay M. Johnston, chairman, ACI Committee 524, and managing director, California Lathing and Plastering Contractors Association, Los Angeles, California

### Introduction

Clay M. Johnston, chairman, ACI Committee 524

### Metal and Wood Framing and Lathing

Gene Erwin, director, Southeast Lathing and Plastering Bureau, Atlanta, Georgia

### Bonding Agents and Special Coatings

Daniel J. Goeke, executive vice-president, Larsen Products Corporation, Rockville, Maryland

### Mixing and Application of Base and Finish Coats

Donald E. Reysa, manager, Specialty Products Marketing, General Portland Inc., Dallas, Texas

### Aggregates

Thomas Geary, specialty manager, Calaveras Cement Company, Redwood City, California

### Research and Testing

A. W. Isberner, senior research engineer, Concrete Materials Research Department, Portland Cement Association, Skokie, Illinois

### Contractor Functions

Joseph A. Feldner, contract manager, McNulty Brothers Company, Chicago, Illinois

Notes



Wednesday, November 5  
9:00 a.m. - 12:00 noon

## THE BUILDING OF THE CN TOWER

*Fraser*

**Session Chairman:** Gary Woolgar, general manager, Toronto Division, Dufferin Concrete Products, Toronto, Ontario

### *Part I - Concept and Purpose of the CN Tower*

#### **Architectural Concepts and Design**

Edward R. Baldwin, project architect, CN Tower Project, John Andrews International, Toronto, Ontario

### *Part II - Design*

#### **Structural Design**

Franz Knoll, project engineer, Nicolet, Carrier, Dressel and Associates, Ltd., Montreal, Quebec

#### **Foundation Investigation and Design**

Eli Robinsky, professor, Department of Civil Engineering, University of Toronto, Toronto, Ontario

#### **On the Prediction of Wind Action on the CN Tower, Toronto**

A. G. Davenport, professor; and N. Isyumov, manager and associate research director, Faculty of Engineering Science, University of Western Ontario, London, Ontario

#### **Proposed Wind Load Performance Study**

Peter Birkmoe, professor, Department of Civil Engineering, University of Toronto, Toronto, Ontario

Wednesday, November 5  
2:00 p.m. - 5:00 p.m.

## THE BUILDING OF THE CN TOWER

*Fraser*

**Session Chairman:** Gary Woolgar, general manager, Toronto Division, Dufferin Concrete Products, Toronto, Ontario

### *Part III - Construction*

#### **Overall Construction**

Andre Jorden, project manager, Foundation Company of Canada, Toronto, Ontario

#### **Prestressing the Tower**

John Prosser, general manager, VSL Canada Ltd., Stoney Creek, Ontario

#### **Material Problems and Quality Assurance**

John A. Bickley, general manager, Construction Testing Services Ltd., Rexdale, Ontario; and P. K. Mukherjee, evaluation engineer, Concrete Construction Products, Ministry of Transportation and Communications, Downsview, Ontario

Wednesday, November 5  
2:00 p.m. - 5:00 p.m.

## RESEARCH ON PLAIN AND REINFORCED CONCRETE

*(Brief and confidential unpublished reports)*

sponsored by **ACI Committee 115**

*Stanley/Park*

**Session Chairman:** Herbert K. Cook, chairman, ACI Committee 115, and vice-president of engineering, Master Builders, Cleveland, Ohio

**Secretary:** M. A. Ward, secretary, ACI Committee 115, and professor, Department of Civil Engineering, The University of Calgary, Calgary, Alberta

#### **The Use of Expansive (Self-Stressing) Cements in Reinforced Concrete Structures**

Charles F. Scholer, associate professor; H. Gowda, graduate research instructor; and E. C. Ting, associate professor, School of Civil Engineering, Purdue University, West Lafayette, Indiana

#### **Internally Sealed Concrete for Bridge Decks**

Kenneth C. Clear, highway research engineer, Materials Division, Office of Research, Federal Highway Administration, Washington, D.C.

#### **Solid and Hollow Rectangular Prestressed Concrete Beams Under Combined Loading**

Janko Mistic, senior structural engineer, W. J. Franci & Associates, Edmonton, Alberta; and Joseph Warwaruk, professor, Department of Civil Engineering, University of Alberta, Edmonton, Alberta

#### **Insulating Concrete for Shallow Foundations**

Eli Robinsky, professor, and William Smith, graduate student, Department of Civil Engineering, University of Toronto, Ontario

#### **Cooperative Research on Properties of Concrete**

Paolo Bertacchi, Roberto Bellotti, and Topio Rossi, E. N. E. L., Milan, Italy; Kurt H. Gerstle and Hon-Yim Ko, University of Colorado, Boulder, Colorado; Diethelm Linse, Technical University, Munich, Germany; John B. Newman, Imperial College, London, England; Gerald Schickert, B A M, Berlin, Germany; Michael A. Taylor, University of California, Davis, California; Roger M. Zimmerman and Leonard Traina, New Mexico State University, Las Cruces, New Mexico

#### **Damage and Repair of a Four-Story Reinforced Concrete Test Structure**

R. M. Czarnecki, senior research engineer, and S. A. Freeman, structural engineer, URS/John A. Blume & Associates, Engineers, San Francisco, California

#### **Early Strength Gain Characteristics of Concrete**

H. S. Lew, structural research engineer, and Thomas W. Reichard, research physicist, Building Safety Section, Structures, Materials and Safety Division, Center for Building Technology, National Bureau of Standards, Washington, D.C.

#### **Experimental Study of Progressive Collapse in Large-Panel Structures**

Norman W. Hanson, principal structural engineer, Structural Development Section, Portland Cement Association, Skokie, Illinois

#### **Development of an Accurate, Low Cost Strain Gage for Long Term Concrete Studies**

Norbert K. Becker, assistant manager, M. M. Dillon Ltd., Consulting Engineers, Windsor, Ontario; and Cameron MacInnis, professor, Department of Civil Engineering, University of Windsor, Windsor, Ontario

#### **A Modified Fourier Method of Shape and Surface Texture Analysis of Concrete Aggregates**

Jack E. Gillott, professor, and Eliza Czarnecka, research associate, Department of Civil Engineering, University of Calgary, Calgary, Alberta

Wednesday, November 5

4:00 p.m. - 6:00 p.m.

## EFFECTIVE COMMITTEE CHAIRMANSHIP WORKSHOP

sponsored by ACI Educational Activities  
Committee

*Mackenzie*

**Purpose:** To increase the productive efforts of ACI committees  
**Objective:** Participants will leave with improved skills in organizing and motivating committee members  
**Audience:** ACI committee chairmen and chairmen-elect. Committee members and others may attend as observers

### PROGRAM

4:00 p.m. - 4:15 p.m.

#### Opening the Workshop

Introductions  
Purpose and objectives  
The workshop plan

4:15 p.m. - 4:25 p.m.

#### Organizing a Committee for Action

4:25 p.m. - 4:35 p.m.

#### Discussion

4:35 p.m. - 4:50 p.m.

#### Assigning Members to Tasks and Responsibilities

Instructor: Bertold E. Weinberg, Chairman, Committee 311, Inspection of Concrete

4:50 p.m. - 5:00 p.m.

#### Discussion

5:00 p.m. - 5:15 p.m.

#### Motivating Committee Members; Getting Them All to Work

Instructor: Lewis H. Tuthill, Past President, ACI

5:15 p.m. - 5:25 p.m.

#### Discussion

5:25 p.m. - 5:40 p.m.

#### The Mission, Objectives, and Measuring Progress

Instructor: Thomas J. Reading, Chairman, Committee 201, Durability of Concrete

5:40 p.m. - 5:50 p.m.

#### Discussion

5:50 p.m. - 6:00 p.m.

#### Evaluation and Summary

Instructor: Robert E. Philleo, Past President, ACI

# Thursday

November 6

8:15 a.m. - 12:00 noon

## GENERAL SESSION

*Ballroom*

**Session Chairman:** Gerald W. Elkington, president, British Columbia Chapter, ACI, and principal, R. M. Hardy & Associates, Burnaby, British Columbia

**Presentation of Proposed "Recommended Practice for Design and Construction of Concrete Bins, Silos, and Bunkers for Storing Granular Materials"**

Sargis S. Safarian, chairman, ACI Committee 313, and president, S M H Engineering Inc., Lakewood, Colorado

**Presentation of Proposed Revision to ACI Bylaws**

Bryant Mather, chief Concrete Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

**Raymond E. Davis Lecture: Down With Your Isle of Portland!**

Peter Smith, director, Engineering Research Development Branch, Ministry of Transportation and Communications - Ontario, Downsview, Ontario

**Acknowledgment of Chapter Officers and Presentation of Chapter Charter**

**Resume of History of Concrete Terminal Elevators in Canada**  
J. Murray Fleming, chairman, C. D. Howe Company Ltd., Thunder Bay, Ontario

**Canadian Experience in the Use of Accelerated Strength Testing:**

**Use of Modified Boiling Method in Eastern Canada**

V. M. Malhotra, head, Construction Materials Section, Canada Center for Minerals and Energy Technology, Ottawa, Ontario

**Use of Autogenous Curing Method in Toronto Area**

John A. Bickley, general manager, Construction Testing Services Ltd., Rexdale, Ontario

**Use of Modified Boiling Method in Western Canada**

L. E. Rodway, chief materials engineer, R. M. Hardy and Associates, Ltd., Calgary, Alberta

Notes

Thursday, November 6  
2:00 p.m. - 5:00 p.m.

Thursday, November 6  
2:00 p.m. - 5:00 p.m.

**CONCRETE GUIDEWAYS**

**AVIANCA BUILDING FIRE**

sponsored by ACI Committee 358

*Fraser*

*Mackenzie*

**Session Chairman:** Richard C. Elstner, principal, Wiss, Janney, Elstner and Associates, Northbrook, Illinois

**Session Chairman:** Arthur R. Anderson, senior vice-president, ABAM Engineers, Inc., Tacoma, Washington

**Description of the Design and Construction of the Avianca Building in Bogota, Colombia**

Domenico Parma, structural engineer, Bogota, Colombia

**An Overview of Guideway Design**

C. W. Dolan, project manager, and M. W. La Nier, project engineer, ABAM Engineers Inc., Tacoma, Washington

**Presentation of Film of Fire**

Eduardo A. B. Salse, senior engineer, Wiss, Janney, Elstner and Associates, Northbrook, Illinois

**Analytical Models for Certain Guideway Irregularities**

D. A. Hullender, associate professor, University of Texas at Arlington, Arlington, Texas

**Use of the Dynamic Response Test in the Evaluation of Structural Damage**

John F. Wiss, principal, Wiss, Janney, Elstner and Associates, Northbrook, Illinois

**Metro Toronto Zoo Domain Ride**

R. D. Stevens, president, Bendix Systems of Canada Ltd., Toronto, Ontario

**Investigation of the Avianca Building for Structural Damage from Fire**

Richard C. Elstner, principal, Wiss, Janney, Elstner and Associates, Northbrook, Illinois

**Behavior of Reinforced Concrete Curved Beams**

T. T. C. Hsu, professor and acting chairman, Department of Civil Engineering, University of Miami, Coral Gables, Florida

**Repair of Fire Damage**

Jaime Moreno, engineering sales, Material Service Corporation, Chicago, Illinois

**Time-Dependent Behavior of**

**Elevated Prestressed Concrete Guideways**

Th. Helgason, senior structural engineer, and H. G. Russell, manager, Structural Development, Portland Cement Association, Skokie, Illinois

**Notes**

**Notes**

Thursday, November 6  
2:00 p.m. - 5:00 p.m.

## **COLD REGIONS CONCRETING SYMPOSIUM** sponsored by ACI Committee 306

*Stanley/Park*

**Session Chairman:** John M. Scanlon, chairman, ACI Committee 306, and chief, Engineering Mechanics Division, Concrete Laboratory, U.S. Army Engineer Waterways Experiment Stations, Vicksburg, Mississippi

**Minimum Protection and Thermal Stresses in Winter Concreting**  
J. Neil Mustard, supervising engineer-concrete, Ontario Hydro, Toronto, Ontario

**Temperature Control for Mass Concreting in Cold Regions**  
Richard A. Kaden, materials specialist, Walla Walla District, U.S. Army Corps of Engineers, Walla Walla, Washington

**Durability of Exposed Concrete Flatwork in Cold Regions**  
Lloyd Edward Rodway, chief concrete engineer, R. M. Hardy and Associates, Ltd., Calgary, Alberta

**Factors Controlling Strength and Cost of Concrete Cast Near Freezing Point Temperatures**  
Joseph Hode Heyser and Jules Houde, professors, Ecole Polytechnique, Montreal, Quebec.

**Use of Reg-Set Cement for Cold Weather Concrete Construction**  
George C. Hoff, supervising research civil engineer, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

**Discussion of ACI Recommendations for Cold Weather Concreting**  
Lewis H. Tuthill, concrete engineering consultant, Sacramento, California

Notes

# **Friday**

November 7  
9:00 a.m. - 12:00 noon

## **DESIGN AND CONSTRUCTION OF OCEANIC PLAZA OFFICE TOWER**

*Fraser*

**Session Chairman:** Gerald W. Elkington, principal, R. M. Hardy & Associates, Burnaby, British Columbia

**Architectural Design Concepts**  
Charles Paine, senior partner, Paine and Ching, Vancouver, British Columbia

**Structural Design**  
H. Roger Woodhead, project engineer, and Gordon E. Antenbring, associate in charge, McKenzie, Snowball, Skalbania and Associates, Vancouver, British Columbia

**Construction Techniques**  
E. L. S. Skodje, building division manager, Dillingham Corporation Canada Ltd., North Vancouver, British Columbia

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

## **LIMIT DESIGN OF SLABS: CODE CONSIDERATIONS**

sponsored by Joint ACI-ASCE Committee 421

*Stanley/Park*

**Session Chairman:** T. Z. Chastain, chairman, ACI Committee 421, and chairman of the board, Chastain and Tindel, Inc., Consulting Engineers, Tucker, Georgia

**Design Concepts for Floor Slab Systems**  
Richard W. Furlong, professor of civil engineering; and James O. Jirsa, associate professor of civil engineering, University of Texas at Austin, Austin, Texas

**Equilibrium Theory and Strip Method**  
Arne Hillerborg, professor, Division of Building Materials, Lund Institute of Technology, Lund, Sweden

**Yield Line Method = Strip Method = Segment Equilibrium Method**  
Frederick P. Wiesinger, professor of structural engineering, University of Illinois at Chicago Circle, and chairman of the board, Wiesinger-Holland Ltd., Chicago, Illinois

**Does ACI 318-71 Allow Yield-Line Design of Slab?**  
Sidney H. Simmonds, professor of civil engineering, University of Alberta, Edmonton, Alberta; and Amin Ghali, professor of civil engineering, University of Calgary, Calgary, Alberta

**Punching Strength Design Criteria for Flat Slabs**  
Hans Gesund, professor of structural engineering, University of Kentucky, Lexington, Kentucky

**Shear Problems in Slabs**  
Neil M. Hawkins, professor of civil engineering, University of Washington, Seattle, Washington

## ACI FUTURE CONVENTIONS

**1976 Annual Convention**  
Philadelphia, Pennsylvania  
March 28 - April 2

**1976 Fall Convention**  
Mexico City, Mexico  
Co-Sponsor: Instituto Mexicano del  
Cemento y del Concreto, A.C.  
October 24-29

**1977 Annual Convention**  
San Diego, California  
March 13-18

**1977 Fall Convention**  
New Orleans, Louisiana  
October 16-21

**1978 Annual Convention**  
Toronto, Ontario, Canada  
April 9-14

**1978 Fall Convention**  
Houston, Texas  
October 29 - November 3

1976 Fall Convention

# MEXICO



## THE BIRTHPLACE OF AMERICA

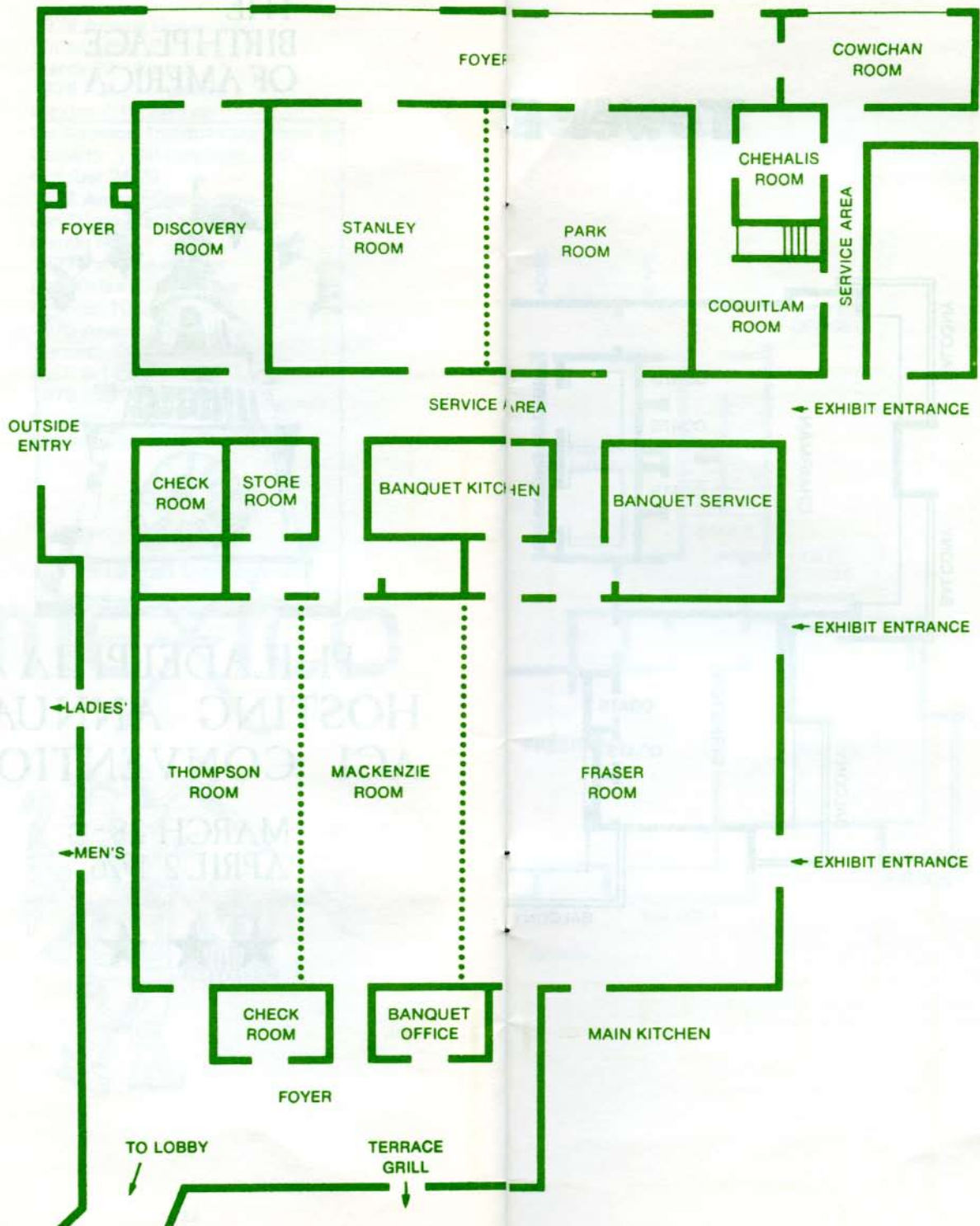


## PHILADELPHIA HOSTING ANNUAL ACI CONVENTION

MARCH 28 -  
APRIL 2 1976

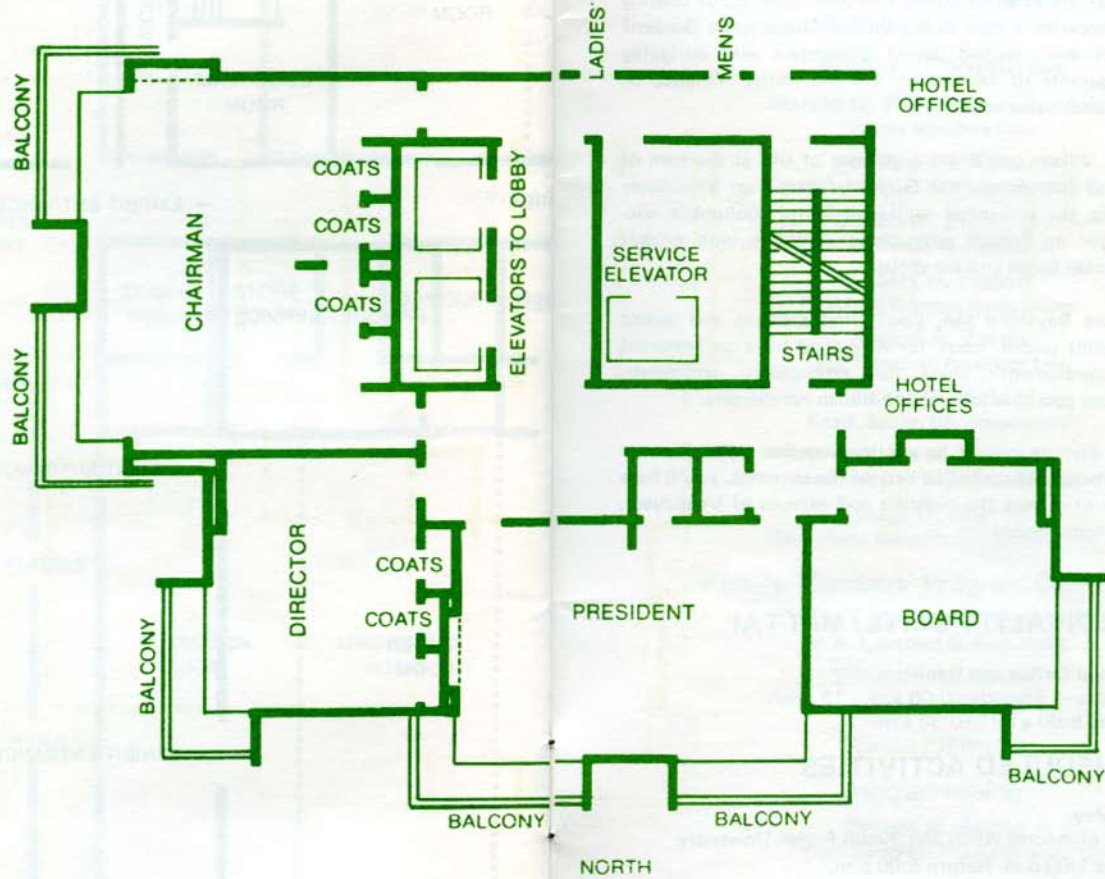


SNOWY MOUNTAIN FUTURE  
THE BIRTHPLACE  
OF AMERICA



# Ground Floor

# Tower Facilities



## FAMILY MEMBERS' PROGRAM

Here you are in Vancouver and the answers to what to do are plenty!

In the mornings, come to the Hospitality Suite for coffee and rolls to start the day out. Afternoons are casual with some unusual sites to see and things to do. Just check at the Hospitality Suite to find out what, when and where.

Besides the planned group functions, each family member will be furnished a list of places to go during free time. How about boating on the Lost Lagoon or a visit to the unique Shakespeare Garden? There's the continent's second largest Chinatown with intriguing shops and restaurants to experience, see the Indian Totems, or enjoy an exceptional aquarium.

At the Heritage Village you'll get a glimpse of life at the turn of the century. And just across the Gulf of Georgia on Vancouver Island is Victoria, the provincial capital of British Columbia. Victoria is noted for its English atmosphere complete with cricket fields, double-decker buses and tea shops.

Minutes from the Bayshore Inn, you'll find brilliant and quaint shops with bargains galore. Look for very good buys on imported Oriental silks, bamboowork, china, furs, embroidery, ornaments, sportswear, leather goods, woollens, and Indian handicrafts.

On Wednesday evening, you'll be getting together with the conferees for a "Concrete Mixer". The rest of the evenings, you'll have the opportunity to sample the nightlife and eateries of Vancouver, following our recommended list.

Have a ball!

### HOSPITALITY SUITE: MAI TAI

#### Wakeup Coffee and Danish

Monday - Thursday 9:00 a.m. - 12 noon

Friday 9:00 a.m. - 10:30 a.m.

### SCHEDULED ACTIVITIES

#### Tuesday

Tour of Andres Wines and Simon Fraser University

Leave 1:00 p.m. Return 5:00 p.m.

#### Wednesday

Harbor Tour on a Sternwheeler

Leave 1:30 p.m. Return 3:00 p.m.

#### Thursday

Chinatown Lunch and Shopping Tour

Leave 10:30 a.m. Return 4:00 p.m.

#### Friday

Tea and Coffee Demonstration

10:30 a.m. - 11:30 a.m.

## VANCOUVER CONVENTION COMMITTEE

**A. J. Montador, General Chairman**  
British Columbia Department of Highways

**Wilfrid G. Heslop**

University of British Columbia (retired)

**Gerald W. Runolfson**

Master Builders Ltd.

**Gerald W. Elkington**

R. M. Hardy & Associates

### Finance Committee

**Gerald W. Runolfson, Chairman**

Master Builders Ltd.

**Wilfrid G. Heslop**

University of British Columbia

**Gerald W. Elkington**

R. M. Hardy & Associates

**Robert W. Piggott**

Portland Cement Association

**Bryant A. Zavitz**

Gulf Concrete Products Ltd.

**James G. Mutrie**

Read, Jones, Christopherson

**Richard A. Spencer**

University of British Columbia

**George D. Gummer**

Dillingham Corporation Canada Ltd.

### Family Members' Program Committee

**Philip T. Seabrook, Chairman**

B. H. Levelton & Associates

**Elizabeth Seabrook**

**Beverly Piggott**

**Marion Elkington**

**Housekeeping**

**Bryant A. Zavitz**

Gulf Concrete Products Ltd.

The officers, staff, and Members of ACI would like to thank the Local Committee, the Hostesses, the Chapter, and the Contributors for their part in the 1975 Fall Convention.



# YANCOUVER CONVENTION A ROUNDTABLE

A. J. Johnson, General Chairman  
William G. Hanson  
Lawrence H. Hanson

George W. Hamilton

Frank J. Hamilton  
George W. Hamilton

Robert A. Hamilton  
George W. Hamilton

John A. Hamilton  
George W. Hamilton

Family Members' Program Committee  
L. H. Hamilton

Elizabeth Hamilton  
George W. Hamilton  
Frank J. Hamilton  
George W. Hamilton  
George W. Hamilton

The officers, staff, and members of ACF would like to thank  
the local committee members, members, and the  
committee for their help in the 1958 Fall Convention.