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PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS

1317 Spruce Street, Philadelphia, PA 19107

Vol. 60 - 7

OUR 74th YEAR

April/May, 1988

### APRIL JOINT DINNER MEETING

Philadelphia Section, American Society of Civil Engineers Philadelphia Post, The Society of American Military Engineers

# TUESDAY, APRIL 12, 1988 ENGINEERS' CLUB, 1317 Spruce St., Philadelphia

Cocktails - 5:30 P.M. Dinner - 6:30 P.M. Meeting - 7:30 P.M.

SUBJECT: THE ASCE MANUAL OF PROFESSIONAL PRACTICE FOR QUALITY IN THE CONSTRUCTED PROJECT. SPEAKER:

JAMES W. POIROT, Chairman of the Board, CH2M Hill, Inc.



The publication of this year's "Manual of Professional Practice for Quality in the Constructed Project" is the result of more than two and one-half years of effort by a Task Committee, with numerous volunteer contributors and reviewers, ASCE staff and an expenditure of approximately \$250,000.00

Heading up the Task Committee is James W. Poirot, who will present the results - one of the most ambitious undertakings in ASCE history.

The manual has also become an issue of controversy among some members and other organizations, including the American Institute of Architects, whose National President has announced his opposition to its publication.

James W. Poirot, a Registered Professional Engineer in Alaska, Colorado, Oregon and Washington, earned his B.S., Civil Engineering, from Oregon University. Before becoming Chairman of the Board for CH2M Hill, Inc. —which he joined in 1953— and its affiliated companies, he served as District Manager for several Districts throughout the United States, with responsibilities for overall management and coordination of all operations, including engineering investigation, design planning; and economic and scientific research and construction supervision of sewerage systems; port, industrial and harbor facilities; water supply and waste disposal systems for industries.

Mr. Poirot served as an officer in the U.S. Army Corps of Engineers in the construction of an Air Force Base in Alaska; and he previously was employed by several construction companies in Oregon and Alaska. He is a member of ASCE, in which he participates as an official in numerous Management Planning and Development Task Committees and Divisions; and in Consulting Engineers Councils in several states.

Mr. Poirot is the author of several papers on his specialties; and he is an accomplished speaker, having made presentations before distinguished National and International professional association audiences, Among the honors and awards, Mr. Poirot has achieved are: The 1985 Edmund Friedman Professional Recognition Award, ASCE; Engineering News Record Award ("Those Who Made Marks in 1985"), honoring individuals who serve the best interests of the construction industry.

SPECIAL FEATURE: TEMPLE UNIVERSITY NIGHT

The ASCE Student Chapter, Faculty and Alumni of the Civil Engineering Department of Temple University will be honored at this meeting. All students, faculty and alumni are cordially invited to attend.

FOR RESERVATIONS FOR THE APRIL 12, 1988 JOINT MEETING, PLEASE CALL PRESI-DENT NORMAN WEINTRAUB'S SECRETARY, PAULA AT (215) 592-6209. Dinner Meal Charge: ASCE & SAME Member - \$15.00; Non-Member - \$16.00; Students - \$8.00 STUDENTS: If you prefer, you are welcome to attend the Meeting after Dinner, at no charge.

## TECHNICAL GROUP ACTIVITIES Structural Group

April Meeting

The Structural Group's February 23, 1988 Meeting, announced in the February, 1988 issue of THE NEWS, has been rescheduled for April,

Tuesday, April 26, 1988

Engineers' Club

Cocktails - 5:00 PM; Dinner - 6:00;

Meeting - 7:00

Subject: Slip-forming the Core of the Blue Cross Tower Building

Speaker: Harvey Lehr, President, NCI of

Minnesota, Inc.

The presentation will include a movie, slide show and discussion of the slip-formed concrete for the 48-story office building currently under construction at 19th and Market Streets, Philadelphia, PA. Mr. Lehr will explain the various aspects of the overall slip-forming operation; as well as considerations for the designer in developing reinforcing bar details, anchorages and embedments.

For reservations and full information, please call Timothy H. Haahs, Chairman, Structural Group, at Walker Parking Consultants, (215) 751-9555; or David Van Ocker, Vice Chariman, at Christakis & Kachele, Inc., (215) 352-7676.

## Transportation & Urban Development Group

April Meeting

Thursday, April 21, 1988 Date:

Engineers' Club

Cocktails - 5:30 PM; Dinner - 6:00;

Meeting - 7:00

Subject: Philadelphia Trolley System PEER Review Program

Speaker: Dr. Vukan Vuchic, Professor of Transportation Engineering, University of Pennsylvania

Dr. Vuchic will explain and discuss his most recent undertaking, which consists of a PEER Review with two other national transporation experts of SEPTA's streetcar system. Dr. Vuchic will discuss the general overall condition and PEER Review team's analysis and recommendations to methods of operation, equipment and physical plant, etc.

(Continued on Page 2)

### !! HERE IT COMES !!

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## The Event We've All Been Waiting for!

## The Fabulous Annual Dinner Dance Saturday, May 14, 1988

### Park Towne Place

220 Benjamin Franklin Parkway, South Building, Philadelphia, PA Parking on premises

6:30 P.M. (Cash Bar) FILET MIGNON DINNER • HOT/COLD HORS D'OEURVES Fine cuisine featuring Bavarian Dessert Table

For your listening and dancing pleasure — the music of "The Tootsie Pops"

a 7-piece group of talented and versatile musicians with vocalist and performer, Barbara. Featuring turn-of-the-century Big Band "Swing," to show tunes of the 30s and 40s, they appear regularly at The Bourse, Union League, Franklin Plaza, and Fourth of July celebrations at Independence Hall.

### PRESENTATION OF AWARDS COME JOIN YOUR FRIENDS FOR FUN

Call and send for your tickets today. . . guests welcome

— \$32.50 per person —

Consultants, Contractors, Etc. — reserve tables for your firms.

Please make checks payable to "Phila Section, ASCE" Call for your reservations and mail checks to Norman G. Weintraub Attention: Paula Philadelphia Water Department

One Reading Center Philadelphia, PA 19107 (215) 592-6209

(Paula will mail tickets to you after receiving your check).

REMEMBER HOW FANTASTIC THE FOOD AND SERVICE WERE LAST YEAR? AND HOW DELIGHTFUL THE ENTIRE AFFAIR WAS?? LET'S MAKE SURE TO DO IT AGAIN!

Please call Paula at Norm Weintraub's office right away and reserve your tickets. Dinner Dance Chairperson, Women's Auxiliary: Ann D. Leasure (215) 242-0872

## ENJOY YOUR SUMMER!!

On behalf of the Officers and Board of Directors of the Philadelphia Section, ASCE, the staff of THE NEWS extends to all the Members and their families best wishes for healthy and pleasant Spring, Summar and Fall seasons.

We look forward to seeing you all at the first meeting of the Section's 1988-1989 season at the Engineers' Club on Tuesday, October 11, 1988. Watch for the October, 1988 issue of THE NEWS.

### Technical Group Activities

(Continued from Page 1)

T&UD Group May Meeting

Thursday, May 26, 1988 Date:

Engineers' Club

Cocktails - 5:30 p.m.; Dinner 6:00 p.m.;

Meeting 7:00 p.m.
Subject: The Blue Route, Interstate 476

Speaker: Douglas May, P.E.

Project Manager, PADOT

Mr. May will present to the group the status of the overall program of the final phase of this project, the construction phase. Mr. May will elaborate on his many years of involvement from initial planning to present and review briefly the history up to its current status. We look forward to being informed of the major obstacles which have been and will be overcome to complete the major transportation project.

For reservations and full information on April and May meetings, please contact William T. Thomsen, Chairman, T&UD Group, c/o Urban Engineers, Inc., 300 N. Third Street, Philadelphia, PA 19106 (215) 922-8080.

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### WINOKUR RELOCATES OFFICE

Dan Winokur, former Chairman of the Section's Transportation and Urban Development Group, President of D.S. Winokur Associates, Inc., Engineers, Planners, Surveyors, is pleased to announce the relocation of the firm's offices to 400 Market Street, 3rd Floor, Philadelphia, PA 19106 -(215) 627-2440.

> PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS

OFFICERS 1987-1988

PRESIDENT

Norman G. Weintraub

VICE PRESIDENTS

Susan K. Lior (President-Elect)

J. Richard Weggel **SECRETARY** 

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(Reading Branch)

PAST PRESIDENTS John E. Durrant Ira N. Pierce

Albert M. Tantala

COPY DEADLINE FOR OCTOBER 1988 **ISSUE** SEPTEMBER 5, 1988

### THE PRESIDENT'S MESSAGE

I started the year, back in May, with a great deal of concern about how I would do as Section President. Would I be thrown off the roof of the Engineers' Club by a bunch of disgruntled members? Would there be a series in THE NEWS demanding my impeachment? Would I learn to stop exaggerating? The year is just about over and both I and the Section have survived.

It certainly has been a learning experience. You can't believer the number of Committees from National that have projects that must have the Section President's attention. From starting an Engineers Week Program (we already have a superb one, thank you) to nominating "Key Contact" members to react to important legislative initiatives (blame me if you were one of the 30 names submitted), requests were received weekly. Some got referred to Local Committees, some went to Sid Robin for THE NEWS, some were discussed at board meetings and many were processed in my recyclable material deposit center. It is awesome to be part of a 100,000 member organization, I just never understood why they are all mailing me something.

Sid Robin, John Durrant, Sue Lior, Rich Weggel and Bob Wright, in particular, and many, many others deserve the credit for everything that went right this year. Their support, recommendations, suggestions and timely reminders allowed the Section to function smoothly. In mentioning names of those who deserve credit and thanks, there is no way I can pass over my secretary, Paula. From taking reservations, to mailing out agendas, she has been the most active person in the Section. Her calm competence kept everything running smoothly.

Talking about reservations, you, the members did an outstanding job. For the first time in years we consistently had accurate advanced reservations, both for "home" meetings at the Engineers Club and for our two "away" efforts. Both the December meeting at Drexel and the February meeting in Valley Forge were successful, but Valley Forge deserves special mention. Over 100 attended the talk by Fred Marrocco. There were many unfamiliar faces and several told me it was the only Section meeting they have attended. The language used to describe coming into "the City" for a meeting made me blush. Although I don't think it's time to move to the 'burbs, I strongly urge that we plan at least one suburban meeting a year. I also liked the idea of a joint meeting with our Reading Branch, as did they.

Another innovation we should try again and for which special recognition should be given to Bill Thomsen, Chairman of the Section's Transportation & Urban Development Group, is for his outstanding first meeting in October. By scheduling a sit down dinner, he let the Engineers' Club prove it could do a fine job for a reasonable price.

A special highlight of the year was attending the We The People Bridge Lighting Ceremonies. Being part of a historic occasion was thrilling. I think we all agree the Section got its money worth for the light bulb.

It looks as if the concrete canoe race is returning to the sponsorship of the Section and will take place on the Schuylkill this spring. It should be a lot of fun.

Thanks to all of you for your help and understanding and I hope you will join me on May 14 at Colleen's when I turn the gavel and the worry over to Sue Lior. The sigh of relief you hear will be mine!!

Sincerely, Norman G. Weintraub, President Phila. Section, ASCE

### TECHNICAL GROUP ACTIVITIES

(Continued from Page 2)

## Water & Environmental Engineering Group

May Meeting

Date: Tuesday, May 17, 1988 Engineers' Club

Cocktails - 5:30 P.M.;Dinner - 6:00 P.M.

Lecture - 6:45 P.M.

Subject: Groundwater Contamination Case Studies

Speaker: Preston Luitweiler, Research Engineer, Philadelphia Suburban Water Company Program Host: David Ritter, Assistant Chairman, Water & Environmental Engineering Group. For reservations and full details, please call Mr. Ritter at (215) 768-9411 or Farid F. Mansour, Chairman, W & EE Group, at (215) 422-3376.

#### **Editorial**

## THE WEINTRAUB PRESIDENCY COMPETENCY PERSONIFIED

No superfluous words; no wasted motion; no ineffective use of time. These qualities have been most prominently inscribed in the character of Philadelphia Section ASCE President Norman G. Weintraub, who will relinquish the office to a new incoming President at the Section's Annual Dinner Dance on May 14, 1988.

The qualities aforementioned symbolize also Norman's distinguished engineering career, which has been pursued almost exclusively with the City of Philadelphia Department of Water. Beginning during student days, summers and after his graduation from Lehigh University in 1968, as an Engineer in the Water and Sewer Systems Planning Division, he progressed through the ranks to his present position — which he assumed

in 1981 — of Chief of Water Conveyance. In Norman's words: ". . , I am now blessed with the responsibilities of maintaining all the facilities I designed before being appointed Chief!!"

Norman earned his Bachelor of Arts and B.S., Civil Engineering at Lehigh University, and completed all the required courses, except the thesis, for the Master of Science degree, at Drexel University.

President Weintraub is proud to have served as Section President during the City's celebration of the 200th Anniversary of the Constitution of the United States. A memorable participation during that celebration was the Section's shared sponsorship - with other distinguished Philadelphia corporations, civic groups and professional organizations in varied fields - of the renowned Benjamin Franklin Bridge Lighting Project. Mr. Weintraub attended the September 17, 1987 lighting ceremonies at the bridge, with fellow Section Past Presidents John Durrant and Sid Robin, Representing the Section, the three were interviewed on television at the time by Tug McGraw, the famous Phillies pitcher who is now TV Channel 6 News Commentator and feature interviewer. Sid Robin represented the Section on the Lighting Committee, which is an affiliate of the PENJER-DEL Council (see THE NEWS, November, 1987

In his president's Message published in the October, 1987 issue of THE NEWS, Norman expressed ". . . the hope that he could equal the record of his predecessors, giants of the engineering community who have made the Section what it is today. . . " He need not have any sense of apprehensiveness on this score. He leaves his stamp of vital contributions to the continuing success and stature of our proud organization. With his keen insight and adroit faculties, he was the overseer of a pragmatic program of enlightened monthly Section meetings, innovating in the process the practice of holding two meetings outside the locale of the Engineers' Club. The move was immensely successful. The December, 1987 meeting, hosted by Drexel University; and the February, 1988 meeting, held at the Sheraton Valley Forge Hotel in King of Prussia, were outstanding, both in attendance, content and member interest.

Under President Weintraub's skillful guidance, the Section's Board of Directors, individually and collectively; the Technical Groups; the Women's Auxiliary: the numerous Section Administrative, Society Affairs and Special Task Committees all made impressive strides. He encouraged and supported active participation of area colleges' and universities' ASCE Student Chapters and Clubs through the Section's continuing, progressive program of "College ASCE Nights," in which the various Student Chapters, Faculty, Alumni and Civil Engineering Departments were honored individually at the monthly Section meetings. He has been attentive and helpful to the needs of the Reading Branch (the February, 1988 meeting at the Sheraton was a Joint Meeting with that fine Section affiliate).

Mr. President, it was an interesting year — as you promised it would be. And you rendered your duties with despatch and efficiency, as you do in all your tasks. The Philadelphia Section thanks you and congratulates you for contributing so ably to its high principles and standards. We anticipate with cornfort and assurance your wise (Continued on Page 4)

## ASCE 1988 POLICIES AND PRIORITIES

In order to advance the goals of the Society internally and externally, the National ASCE Board of Direction has adopted official Policy Statements, Position Papers and Resolutions on the major professional and technical issues of interest to the Civil Engineering community and the Nation.

The breadth of ASCE policy activity has been summarized in a referenced abstract booklet with full texts available on request. These abstracts constitute the public policy agenda of the Civil Engineering profession. The list of Policy Summaries includes: Education and Research; Energy; Environment; Government; Infrastructure; International Issues; Liability; Procurement; Registration; Social Issues; Transportation; and Water.

Priority Issues upon which ASCE will place special emphasis during 1988, include the following: Aviation Trust Fund; Clean Air Act Sanctions; Contracting Out; Diverting Dedicated User Fees; Employer Paid Educational Assistance; Expanding the Use of the Brooks Act; Federal Capital Budget; Groundwater; Infrastructure Financing; Infrastructure Research; Professional Liability/Tort Reform; National Bureau of Standards Role; National Science Foundation Budget; Political Campaign Contributions; Small Business Set Asides; and Surface Water Data Collection.

One of the most important parts of the ASCE public policy effort is the **Key Contact Program**. The prime objective of the Program is to engage member participation in the national debate on issues important to Civil Engineers; and to be in a position to impact the U.S. Congress by writing to their Congressmen from time to time when pertinent legislation is being considered. President Grant is endeavoring to enroll 5,000 ASCE members in the Program. President **Norman G. Weintraub**, with the dedicated help of Past Presidet **Albert M. Tantala**, has enrolled 30 Section members.

Members desiring further immediate information are directed to the following sources: on Policies - Brian Conner, Policy Development Manager; on Priorities and the Key Contract Program, including participation and enrollment - Casey Dinges, Legislative Development Manager, both Mr. Connor and Mr. Dinges c/o American Society of Civil Engineers, 1667 K Street NW, Suite 750, Washington, DC 20006 - Phone (202) 785-4454.

### The Weintraub Presidency

(Continued from page 3)

counsel and guidance for many years to come.

Welcome, now, to Susan K. Lior, who will be installed as the 1988-1989 President of the Phila. Section, ASCE, at the Annual Dinner Dance at Park Towne Place on May 14, 1988. This inauguration indeed will be something special: the first time in its seventy-four year history that a woman will serve as the Section's highest officer!

Sue, your record as an outstanding Technical Group organizer, operative and Chairman; as an activist on numerous Committees and special assignments; and as a Section Officer in the hierarchy leading to the Presidency — precedes you with a distinguished record of accomplishment. We offer you our hands and our energies to assist you in the tasks which face you. We know that you will be successful. Good luck!!

### March Meeting

March 8, 1988

Engineers' Club

By Dave Perri, Staff Writer

The Section's March meeting featured a provocative talk on a concept which might make engineers and designers blanch on first encounter with it. The topic was: "The Navy's Contractor-Quality Control Self-Inspection Program." The speaker was Myron Bernhang, P.E., Contract Administration, Northern Division, Naval Facilities Engineering Command, Philadelphia Naval Base. The Section is indebted to Fredric L. Plotnick, Chairman of the Construction Technical Group, for his last-minute arrangement of this meeting and engaging the speaker, after the original scheduling program ran into difficulties. Vice President J. Richard Weggel pinch-hit for Fred in introducing the speaker.

#### 'The Fox Guards Hen House'

In what may appear as apparent conflict of interest, the U.S. Navy has instituted a construction quality control program based upon contractor self-inspection. Guest speaker, Myron Bernhang, P.E., Contract Administrator of the Facilities Command at the Philadelphia Naval Base, assured us, however, that the Navy's program provides a high degree of compliance at a reasonable cost.

The program, dubbed 'Contractor Quality Control' (CQC) is a required contract item for all projects costing over \$1 million. The cornerstone of the program, Publication 445, mandates that an inspection program be tailored to the project and be administered by the contractor.

### **Terminology Defined**

Mr. Bernhang defined quality control as the "contractor's efforts to achieve the quality level established in the contract." The Government's role is quality assurance, defined as "verification that the contractor's inspection system is functioning." He advised against getting bogged down in double inspection efforts. A major benefit of this arrangement is that legally it saves the Navy from claims arising from tacit approval by inspectors who may miss a violation. In the past the Government has been held liable for significant claims arising from inspector oversights.

#### "How Do We Control Quality"

The program requires contractors to have a CQC representative who in most cases must be a registered engineer or architect. In addition, the contractor may have to employ various specialists with expertise to inspect work of a complex nature. The Navy's Quality Assurance personnel monitor the thoroughness of the inspection effort through spot checks. The degree of the quality assurance effort is adjusted as warranted. As a disincentive to poor performance, the Navy reserves the right to remove the CQC representative if he is not performing satisfactorily.

### Case Studies

Mr. Bernhang concluded his excellent presentation by fielding an array of questions probing the CQC representative's obligations to the Navy, cost controls and comparisons to independent inspection systems.

President Norman G. Weintraub presented the Section's Certificate of Appreciation to Mr. Bernhang for his interesting and persuasive talk, which was seasoned with several amusing illustrations and a subtle sense of humor.

### MARK YOUR CALENDAR FOR TWO IMPORTANT EVENTS

Secretary Davis at Engineers' Club

Arthur A. Davis, Secretary, Pennsylvania Department of Environmental Resources, will speak on "Pennsylvania's Environmental Initiatives" at a luncheon meeting at The Engineers' Club in Philadelphia in May. The exact date is not yet firm. This meeting will be cosponsored by the Professional Advisory Council on Energy (PACE) and the Pennsylvania Environmental Council (PEC). ASCE members are active in all three organizations.

For further information and exact date, please contact The Engineers' Club at (215) 735-5234 or PACE at (215) 841-4106.

#### Dr. Teller at Villanova

Sponsored by Villanova University, in cooperation with the Energy Education Advisory Council of Philadelphia Electric Company, and Scientists and Engineers for Secure Energy, Inc. (SE2), Dr. Edward Teller, world renowned physicist, speaks on "The Energy Revolution" Monday, April 11, 1988, 7:30 P.M., at Villanova University, Villanova, PA Connelly Center (from Route 30 parking lots: cross Lancaster Ave. and follow walkway to Connelly Center). The public is invited free.

Senior Research Fellow, Hoover Institution; Consultant and Associate Director Emeritus, Lawrence Livermore National Laboratory, and Professor Emeritus of the University of California, Dr. Teller's major interest at this time includes technical progress and international cooperation regarding strategic defense. Born in Hungary, educated in Germany, Dr. Teller became an American citizen in time to work extensively on nuclear development during and after World War II. He has made important contributions in the fields of chemical physics, molecular physics, nuclear physics and quantum theory.

### WOMEN'S AUXILIARY

April Meeting

The Auxiliary's regular monthly Luncheon-Meeting will be held on Wednesday, April 20, 1988, 12:00 noon, at the Engineers' Club. A representative of the Philadelphia Electric Company will make a presentation on the intriguing topic: "Wives of the Presidents and Their Inaugural Gowns."

May Meeting

The final Auxiliary function of the 1987-1988 season will take place at the Engineers' Club on Wednesday, May 18, 1988, 12:00 noon. The meeting will feature the Installation of Officers for 1988-1989. Principal speaker will be Don Harrison, Associate Editor, Editorial Opinion Column of the Philadelphia Daily News.

Members are encouraged to bring as many guests as possible to this affair, which always emphasizes the atmosphere of a social gathering, with minimum business discussion. It also offers the opportunity to recruit new individuals to join the Auxiliary. For full information about membership application, please call Membership Committee Chairperson Marie (Mrs. Kenneth J.) Zitomer, (215) 548-5324.