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PHILADELPHIA SECTION

AMERICAN SOCIETY OF CIVIL ENGINEERS

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Vol. 66-4

Our 80th Year

January/February, 1994

JANUARY JOINT DINNER MEETING

Philadelphia Section, American Society of Civil Engineers
Delaware Valley Section, American Society of Highway Engineers (ASHE)
Reading Branch, Philadelphia Section, ASCE

WEDNESDAY, JANUARY 26, 1994

HOLIDAY INN – Goddard Boulevard, King of Prussia, PA Cocktails – 6:00 PM Dinner – 7:00 PM Meeting – 8:00 PM

SUBJECT: SUBSURFACE UTILITY ENGINEERING

SPEAKER: ROBERT MILLIKEN, Office Director, Underground Services, Inc.

Mr. Milliken will review the state-of-the-art techniques in utility location, identification and plotting. These aspects have become critical in many projects where facilities must be built around existing utility lines, where such lines must be supported and undisturbed to the maximum possible extent during construction.

SPECIAL FEATURE: Villanova University Night

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

Cost: \$19.00 per member or guest; \$10.00 ASCE Student Members

RESERVATIONS ARE REQUIRED. Please send your check for the number of attendees @ \$19.00 (members or guests) or \$10.00 (students), payable to Phila. Section, ASCE, P.O. Box 58186, Phila., PA 19102-8186; or call the Electronic Message Center, (215) 687-7741 (open 24 hours/day). Deadline for reservations is Wednesday, January 19, 1994.

FEBRUARY JOINT DINNER MEETING

Philadelphia Section, American Society of Civil Engineers South Jersey Branch, New Jersey Section, American Society of Civil Engineers

WEDNESDAY, FEBRUARY 16, 1994

HARBOR LEAGUE CLUB • 800 Hudson Square, Camden, NJ (See Location Map Page 2) Cocktails – 5:30 PM Dinner – 6:30 PM Meeting – 7:30 PM

SUBJECT: NJ TRANSIT SOUTH JERSEY RAIL STUDY/ALTERNATIVES

SPEAKER: J. SCHWARTZWALDER, New Jersey Transit Authority

SPECIAL FEATURE: Temple University Night

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

Cost: \$22.00 per member or guest; \$11.00 ASCE Student Members

RESERVATIONS ARE REQUIRED. Please send your check for the number of attendees @ \$22.00 (members or guests) or \$11.00 (students), payable to Phila. Section, ASCE, P.O. Box 58186, Phila., PA 19102-8186; or call the Electronic Message Center, (215) 687-7741 (open 24 hours/day). Deadline for reservations is Wednesday, February 9, 1994.

TECHNICAL GROUP ACTIVITIES

Geotechnical and Environmental / Water Resources Groups

(Combined Program for 1993-1994)

January Meeting

Date: **Tuesday, January 18, 1994,** 7:00 PM Location: Hill Seminar Room, LeBow Engineering Center, Drexel University, 31st & Market Sts., Philadelphia, PA

SPEAKERS: Kevin Magerr, US EPA Region III, Philadelphia & Arthur Raymond, AJR Consultants, Wallingford, PA

SUBJECT: NPDES Storm Water Permitting Requirements for Industry

The National Pollution Discharge Elimination System (NPDES) has traditionally covered wastewater discharges from industrial and municipal treatment plants. Such facilities have been permitted to meet technical and water quality standards primarily through the use of end-of-pipe technology. With the passage of the NPDES Storm Water Rule, runoff from industrial sites is now subject to permits as well. Although industrial stormwater must comply with the same standards as conventional permits, the control measures are different. The permits rely heavily on pollution prevention through "Best Management Practices" rather than end-of-pipe. The presentation will examine the permit process, focusing on the "Storm Water Pollution Prevention Plan" typically found in NPDES storm water permits.

February Meeting

Date: **Tuesday, February 15, 1994,** 7:00 PM Location: Hill Seminar Room, LeBow Engineering Center, Drexel University, 31st & Market Sts., Philadelphia, PA

SPEAKER: Richard Karr, Waste Management, Inc.

SUBJECT: Biological Processes and Effects in Landfills

It is well established that the biological decomposition in landfills affects leachate quality

(Continued on Page 2)

THE PRESIDENT'S MESSAGE



A new year has just begun (and many of us have just gotten used to writing "93" on checks, documents, etc!). Our Section Meeting program has been generally successful so far and the remainder promises to be interesting.

Our December tour was quite popular. We reached our limit quite early and, unfortunately, we were forced to turn many of you away. It almost seems that we could have run another tour with all of those who were "shut out." If you were among those who did not make the cut, we hope this does not disillusion you. It is quite a different situation for us to have the "luxury" to have too many

people wanting to attend one of our meetings. More of them should be like this!

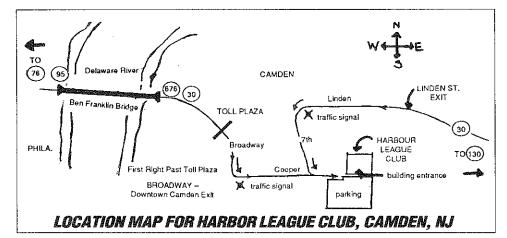
The mailing for our Geotextile Seminar in March should be reaching you shortly, if it already has not. This was another popular event last year and we expect a large response to this year's version.

You should note that we have added a meeting in March at an entirely new location for us—the "Northeast quadrant." Our membership survey of last year indicated that there is a large contingent of members in this area and there was a strong desire to conduct a meeting at a convenient location to our "Nor'easters." Well, in response, here it is. Hopefully, this will be the first of many such meetings in the future as our "traveling meeting show" continues to go to various places in our efforts to make them easier to attend.

A repeat from last month — please don't forget to send in your dues, if you haven't already done so (both National and Phila. Section). Thanks to all of you who continue to support us through payment of your local Section dues.

As always, please feel free to pass along contributions, ideas, suggestions, and the like to help the Section serve you better.

> Sincerely, Bob Wright President, Phila. Section, ASCE



TECHNICAL GROUP ACTIVITIES

(Continued from Page 1)

For further information, please contact: **Dr. J.P. Martin**, Chairman, Geotechnical Group, Dept. of Civil & Arch Eng., Drexel University, Phila., PA 19104, (215) 895-2363 or **Mr. Raymond Lees**, Chairman, Environmental/Water Resources Group, Groundwater Technology, Inc., 223 Wilmington-West Chester Pike, Chadds Ford, PA 19317, (215) 558-1730.

Structural Group

January Meeting

Date: Thursday, January 20, 1994, 7:00 PM Location: Hill Seminar Room, LeBow Engineering Building, Drexel University, 31st & Market Sts., Phila., PA

SPEAKER: Joseph P. Welsh, P.E., Vice President, Hayward Baker

SUBJECT: Innovative Foundation Systems for New and Remedial Construction

Mr. Welsh's slide-illustrated presentation will focus on how foundation problems in the Delaware Valley have been solved using various Ground Modification techniques.

Specific projects will be discussed, including the Franklin Mills Mall; The Regency, Atlantic City; Vanguard Headquarters, Tredyffrin Township; and the Marriott Hotel, West Conshohocken.

February Meeting

Date: Thursday, February 24, 1994, 7:00 PM Location: Hill Seminar Room, LeBow Engineering Building, Drexel University, 31st & Market Sts., Phila., PA

SPEAKER: Nick Gianopolous, Principal, Keast & Hood Engineers

SUBJECT: Preservation of Historic Structures, Pathological Investigations into Decay of Timber Structures

Mr. Gianopolous will present the role of microscopic examination techniques in accurately assessing the structural properties of some significant historic timber structures.

For further information and reservations for January and February meetings, please contact Richard Roberts, Chairman, Structural Group at (215) 561-0460.

(Continued on Page 3)

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TECHNICAL GROUP ACTIVITIES

(Continued from Page 2)

Engineering Management Group February Meeting

Date: Wednesday, Feb. 9, 1994, 12:00 Noon Location: Strawbridge & Clothier, 6th Floor, 8th & Market Sts., Phila., PA

Subject: Professionalism - Engineering Ethics Speaker: Kenneth Zitomer, P.E.

Cost: \$15.00 per person

Ken Zitomer has over forty years experience in various facets of engineering. With the Philadelphia Water Dept. he served as Chief of Construction, Chief of Design, Chief Engineer, Deputy Commissioner, and Commissioner. He is now a private consultant, and an adjunct professor at Drexel University. Ken will discuss ethics in engineering, and how it is taught at Drexel University.

For further information, please contact Al Zion, Chairman, Engineering Management Group, at (215) 937-1930 or Chris Rood at (215) 580-7586. Reservations will be required for the lunch, and should be made by Monday, February 7, 1994.

Upcoming Activity:

Wednesday, March 23, 1994 — Presentation on Total Quality Management (TQM). Details will appear in the March issue of THE NEWS.

SCHNABEL SPONSORS SEMINAR

Schnabel Engineering Associates, West Chester, PA, in conjunction with ASFE: Professional Firms Practicing in the Geosciences, is sponsoring an all-day Seminar for Consulting Engineers of all disciplines on the subject: Loss Prevention and Liability, on Thursday, January 13, 1994, at the Sheraton Inn, Great Valley, Routes 202 and 30, Frazer, PA. The seminar hours are from 8:30 AM to 5:00 PM.

John P. Bachner, a nationally recognized professional liability loss prevention consultant and author, is principal speaker and Seminar Leader. He will address the Consultants in the Delaware Valley area of the basics of loss prevention. Topics to be covered in the seminar include, among others: the cost and causes of disputes and

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EMPLOYMENT CONDITIONS SURVEY

The Philadelphia Section, ASCE is seeking a Chairman and assistants for its Committee on Employment Conditions (Salary and Benefits). Under the expert guidance and authorship of its late Chairman, Norman G. Weintraub (Section Past President 1987-1988), the Committee conducted bi-annual Salary and Benefits Surveys for

lawsuits; the nature of our legal system; the negligence standard and duty of care; contract and warranty/guarantee issues; the fragility of professional liability insurance; and self-defense measures that participants can apply. Several workshops will also be featured.

The cost of the seminar is \$145 per person, or \$125 per person for three or more attendees of the same firm. Advance registration is required as space will be limited. For more information or reservations, contact Richard Wargo or Helen Foreman at (215) 696-6066.

DECEMBER TOUR MEETING GREAT SUCCESS

As President Bob Wright notes in his Message on page 2, the Philadelphia Section's December Tour-Luncheon Meeting on December 7, 1993, was a great success. The Tour was a follow-up of the original inspection tour-luncheon by the Phila. Section of the main Convention Center Complex construction just one year ago, on December 9, 1992.

Hosted by Harry M. Perks, Executive Director of the Pennsylvania Convention Center Authority and former Philadelphia Commissioner of Streets, the Phila. Section tour group visited the recently renovated and almost completed restoration of the Reading Terminal Train Shed, the 100-year old historical structure at 12th and Arch Streets in Center City. The great building has served as the Philadelphia Terminal for the trains of the Reading Railroad System from segments of the vast National network served by the Reading Railroad Company. In an innovative re-use of the Terminal, the new Pennsylvania Convention Authority integrates the famous Train Shed into the

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many years. The questions and summation of replies have always been published in THE NEWS.

Section members interested in pursuing this rewarding program are asked to contact Section President **Bob Wright** or Secretary **George Stanley** (see masthead, column 3, page 2 for addresses and phone numbers).

Convention Center Complex and has rehabilitated it extensively. It is expected to open for public use early in 1994.

It was for this rehabilitation and facilities expansion that Mr. Perks explained and guided the group, with his great professional engineering and administrative expertise. Following the tour, the group enjoyed a delicious lunch at the Joy Tsin Lau Restaurant at 1026 Race Street in nearby Chinatown.

The tour group first inspected the Terminal's track level, which was originally elevated to avoid disturbing the 300-year old farmers' market below, still active and being renovated. The market was kept in full operation throughout the extensive renovation process, which involved renewal or enhancement of practically every structural member, mechanical and piping components of the area. The spectacular Train Shed roof itself, which covers the 3.5 acre 500 ft. long Shed, is one of the most imposing structures in the project. The roof structure consists of a hinged-arch truss system, with timber joists and sheathing. The span is 250 ft. and ceilings are higher than 100 ft. All of the roof structure will be exposed from the ballroom floor. The eleven trusses are pinned at one end, designed to move laterally on rollers at the other, like a bridge. But the rollers had corroded, so workers jacked up the ends of the arches about 1.5 inches and installed Teflon-coated bearing plates.

The gigantic scale of this great project is overwhelming. That it was built within budget and time limits despite almost irremediable obstacles is a tribute to the design, administrative and construction teams involved. Philadelphia officials are proud and optimistic that this great structure will immeasurably enhance the viability of Center City, and command national recognition that Philadelphia is indeed one of the greatest Convention cities of America.

Geosynthetics Seminar

(Continued from Page 4)

Phila. Section President **Bob Wright** urges members to participate in this educational and rewarding Seminar. When you receive the brochure, please fill it out and return it as instructed.



JOIN THE SECTION'S **TECHNICAL GROUPS**

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Fredric L. Plotnick, Chairman **Empromac** P.O. Box 11264 Elkins Park, PA 19117-0264 (215) 885-3733

Structural

Richard Roberts, Chairman Pennoni Associates, Inc. 1600 Callowhill St. Phila., PA 19130 (215) 561-0460

Transportation

Gregory Yates, Chairman Urban Engineers, Inc. 330 N. Third St. Philadelphia, PA 19106 (215) 922-8080

Engineering Management

Alvin Zion, Chairman Hill International, Inc. 1 Levitt Parkway Willingboro, NJ 08046 (609) 937-1930

Geotechnical

Dr. Joseph P. Martin, Chairman Drexel University Civil Engineering Dept. 32nd & Chestnut Sts. Philadelphia, PA 19104 (215) 895-2363

Water Resources & **Environmental Engineering**

Raymond A. Lees, Chairman Groundwater Technology, Inc. 223 Wilmington-West Chester Pike Chadds Ford, PA 19317 (215) 558-1730

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IMPORTANT! 1993-1994 MEETING NOTICES

MARK YOUR CALENDAR for the dates of the remaining Philadelphia Section, ASCE monthly meetings and social functions, as follows: (Check each issue of coming editions of THE NEWS for details, possible date and topic changes.) THIS IS A TENTATIVE LIST.

ALL DINNER MEETINGS (Except as noted for Luncheon Meetings)

Cocktails - 5:30 p.m. Dinner - 6:30 p.m. Meeting - 7:30 p.m.

STUDENTS: All dinner and/or luncheon charges one-half price. If you prefer, you are welcome to attend all meetings after dinner or luncheon, at no charge.

Tuesday, March 8, 1994 - Dinner Meeting, Fisher's Restaurant, NE Philadelphia Employee Trip Reduction Techniques. Speaker: J. Rue, PA Dept. of Environmental Resources. Univ. of PA & Swarthmore Night. Presentation of Life Membership Certificates.

Friday, March 18, 1994 - All-Day Seminar, Drexel University Geosynthetic Research Institute Geotextile Seminar II – Transportation Applications

Speaker: Dr. Robert M. Koerner, Director, GRI Location: Stein Auditorium, Drexel University

March, 1994 - Location, date and time to be announced Financial Planning/Insurance Seminar

Saturday, March 26, 1994 - Family Night of Bowling Details to be announced.

Wednesday, April 13, 1994 (previous date in error) - Officers' Club, Philadelphia Naval Base Joint Dinner Meeting with Society of American Military Engineers (SAME) World Trade Center Emergency Preparedness – Response to Bombing Speaker: Eugene Fasulla, Port Authority of New York and New Jersey Widener University Night

Sunday, May 15, 1994 - Annual Spring Dinner Dance, Officers' Club, Philadelphia Naval Base

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for Grades 1 thru 12 & Community Colleges

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GEOSYNTHETICS SEMINAR

March 18, 1994 • 8:00 AM Stein Auditorium, Nesbitt Hall DREXEL UNIVERSITY 33rd & Market Sts., Philadelphia, PA

By the time this issue of THE NEWS is received, Philadelphia Section, ASCE members probably will have received by separate mailing a brochure describing an all-day Seminar, beginning at 8:00 AM, sponsored by the Philadelphia Section, ASCE, on the subject: "Geosynthetics in Transportation Facilities: Design, Testing and Construction."



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The instructor is Professor Robert M. Koerner, Ph.D., H.L. Bowman Professor of Civil Engineering at Drexel University, and Director of the Geosynthetic Research Institute (GRI) at the University. (Continued on Page 3)



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