

The A.S.H.E. SCANNER

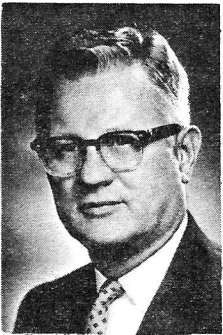
VOLUME VII, No. IV.

THE AMERICAN SOCIETY OF HIGHWAY ENGINEERS

MAY 1971.

"Vic" Anckaitis Granted Honorary Membership Status By Our Society.

Honorary membership, the highest award and honor to be given by the American Society of Highway Engineers to an individual, will be bestowed upon Victor W. Anckaitis, P.E., a Senior Member of the East Penn Section, A.S.H.E., and former Secretary of the Pennsylvania Department of Transportation, during festivities at the Ninth Annual Society Convention at Tamiment Resort and Country Club in the Pocono Mountains of Pennsylvania on May 21st.



ANCKAITIS

The award was unanimously granted by the national Board of Directors at their meeting in Carlisle, Penna. on Friday, April 23, 1971. Originating the petition for the award was the East Penn Section, headed by President Matthew J. McTish, P.E. This award will bring to four that have been made by the Society since its organization in 1958. Mr. Anckaitis will continue his interest and activities in the East Penn Section.

Relieved of his office as Secretary of the Pennsylvania Department of Transportation following the change in administration, "Vic", as he is known throughout the state's highway industry, is now affiliated with the Northeastern Engineering Company, Inc., with headquarters at Clarks Summit, Penna., as executive vice president.

Mr. Anckaitis, has repeatedly brought honor to himself and to his profession in the discharge of his recent duties as Secretary of Transportation of the Commonwealth of Pennsylvania. He has continually advanced the aims and purposes of this Society. Personally, and through his office, he has encouraged and stimulated membership and participation in the activities of the Society among his many associates and acquaintances. He has given freely and generously of his time to advance the scope and influences of this

Society, and has never failed to render assistance when called upon. Recognition of Mr. Anckaitis' achievements within the engineering profession have been made by several societies.

Convention Speaker Announced

The feature speaker for the Ninth Annual Convention of the Society to be held at Tamiment Resort and Country Club, in the Pennsylvania Pocono Mountains from May 20th to May 23rd will be Richard J. Bouchard, of Washington, D.C., director of the office of Environment and Urban Research, in the U.S. Department of Transportation.

Mr. Bouchard will appear at the Past Presidents Dinner on Friday evening, May 21st, and with his long experience in the subject of pollution and contamination, his presentation should be very interesting to those in the highway industry.

SECTIONS BRING BANNERS TO NATIONAL CONVENTIONS

All sections of the Society are urged to bring their A.S.H.E. banners to the Ninth Annual Convention at Tamiment Resort and Country Club in the Pocono Mountains to be held from Thursday, May 20th through Sunday, May 23rd. These banners will be turned in to the person in charge of the registration desk, who will be responsible for their safe return to each section at the close of the



President's Message

ROBERT E. MARTZALL
Dillsburg, Pa.

The current big noise around the Society is, "See you at the convention". These words, of course, mean that another year is approaching the full circle and a new life cycle for A.S.H.E. is about to emerge. This year's convention program has been planned to afford all of us a greater opportunity to participate in technical seminars on subjects of current and vital interest to the highway industry; exchange of ideas relating to the enhancement of the Society through the forum of the annual membership meeting plus plain good fellowship. I would certainly encourage all members to attend and participate in this annual meeting.

The past year, serving as your President, has been a most memorable experience for me. It is indeed a pleasure to have had the opportunity of representing the membership of A.S.H.E. Whatever successes or advancements which may have accrued to the Society during this past year must be attributed to the dedicated services of all the officers, directors and the membership at large. Many of these capable men will continue in responsible leadership in the coming year, therefore I am confident that the Society will continue to expand and climb toward its intended goals.

To John Leapson, our president designate, and to all the officers and directors who will guide the affairs of this Society in the coming year, I extend my best wishes and personal support. To the membership at large, accept my deepest gratitude and appreciation for the courtesies and friendship of the past and the hope for an even greater future.

convention — either following the Saturday night banquet, or early Sunday morning. The banners will be displayed at all functions of the convention.

TECHNICAL CROSS SECTION

John H. Leapson, P.E.
Chairman, Technical Committee

"CONCRETE BRIDGE DECK DURABILITY"

The old saying that "any chain is only as strong as its weakest link" might well have been created especially for the nation's highway system, linked together as it is by more than 200,000 state highway bridges. There has been much concern regarding the problem of deteriorating concrete bridge decks and the causes, prevention, and corrective measures that can be taken. Some agencies report that repair costs to the bridge decks have approached the cost of building the bridge in the first instance.

Because highway personnel responsible for the design, construction and maintenance of bridge decks have a perpetual need for the best "how-to-do-it" information, the Highway Research Board has recently published its SYNTHESIS OF HIGHWAY PRACTICE NO. 4, Concrete Bridge Deck Durability, containing all available information on the subject.

This publication is the fourth in a series published by HRB for the National Cooperative Highway Research Program (NCHRP) as part of a continuing project to search out and synthesize useful knowledge from all possible sources on current practices in various areas of concern. The project was initiated because of the wealth of information relating to nearly every subject of interest to highway administrators, engineers and researchers. Because there is no specific system of bringing this information together, costly research findings often go unused, past experience is overlooked, and recommended solutions for known problems are often ignored.

The magnitude of the bridge deck problem has grown greatly in the past fifteen years. In a 1955 HRB survey, bridge maintenance engineers rated concrete deterioration as their fourth most important problem, while in 1967 it had reached first place.

The most commonly reported conditions are cracking, scaling, and spalling. Cracking, of itself, is not considered to be serious, while scaling can be virtually eliminated by the use of high-quality air-entrained concrete, assisted when necessary by periodic linseed oil applications.

Spalling, the most serious defect, has proved most difficult to control. It is usually caused by the corrosion of reinforced steel requiring the presence of

moisture and a chloride salt. Cracks provide ready access for moisture and salt to reach the steel, although porous concrete without cracks is also susceptible to moisture and salt intrusion.

To develop this synthesis in a comprehensive manner, and to make sure that the most significant knowledge was included, the Board analyzed all information — for example, current plans, practices, specifications, manuals, and research recommendations — assembled from the knowledge of highway departments; toll-road agencies and other agencies responsible for highway and street design, construction, and maintenance. Correspondence, personal interviews, and a thorough literature search helped to fill in gaps in the accumulated material, which was then assessed and organized by a panel of experts.

The published report spells out the nature and gravity of the problem, and compares the various types of bridge deck distress, e.g., scaling versus spalling. It covers the basic differences between deterioration of bridge-deck slabs and roadway slabs, and between old and new bridges. In the latter connection, the report points out that, though many studies have shown that bridges built since World War II were more subject to scaling than older ones, no positive conclusion can be drawn because only the best of the pre-war bridges are now in service, and de-icing salts didn't come into common use until the mid-fifties.

A section on identifying causes spells out the relationships between deterioration and design, materials, construction, and environment, while a subsequent chapter covers solutions in current practice, i.e., design-oriented, construction-oriented, and maintenance-oriented solutions.

The report concludes with a listing of current research on the problem and an assessment of future research needs.

CONCRETE AND RELATED PRODUCTS

Field experience and laboratory investigations in the area of concrete and related products are contained in papers recently published by the Highway Research Board as HIGHWAY RESEARCH RECORD NO. 328, "Concrete Durability, Cement Paste, Aggregates, and Sealing Compounds."

The papers deal with structural lightweight concrete, shrinkage-compensating concrete, concrete bridge decks, sealing compounds for concrete, corrosion of steel

in concrete, frost susceptibility of concrete aggregates, hardened cement paste, and temperature control of concrete.

The papers included in the report are as follows:

Influence of the Degree of Saturation of Coarse Aggregate on the Resistance of Structural Lightweight Concrete of Freezing and Thawing.

Effect of Aggregate Type on the Properties of Shrinkage-Compensating Concrete.

Slow-Cooling Tests for Frost Susceptibility of Pennsylvania Aggregates.

Chlorides and Bridge Deck Deterioration.

Durability of Bridge Decks - A Review of Cooperative Studies.

Laboratory and Field Tests on Concrete Sealing Compounds.

Effectiveness of Corrosion Inhibitors and Their Influence on the Physical Properties of Portland Cement Mortars.

The New Model of Hardened Portland Cement Paste.

Temperature Control of Mass Concrete in Japan.

Discussions on the various papers are included.

HIGHWAY RESEARCH RECORD NO. 328 is available for \$3.20 a copy from the Highway Research Board, Publications Department 805, 2101 Constitution Avenue, N.W., Washington, D.C. 20418.

LANDSLIDES, SLOPE PROTECTION, AND EMBANKMENT DESIGN

Landslides hardly represent an everyday occurrence in the life of the average highway engineer, but on the rare occasions when they do occur, they are likely to cause damage out of all proportion to their frequency. A few ounces of prevention in these cases can be worth many tons of cure, and the material contained in a new publication from the Highway Research Board may prove invaluable to engineers and planners involved in the location and design of embankments in areas of questionable stability.

HIGHWAY RESEARCH RECORD NO. 323 "Landslides, Slope Protection and Stability, Embankment Design and Stability," contains nine reports on various aspects of the problem. Albert J. Froelich (U.S. Geological Survey), through his description of the geologic setting for the Pine Mountain area of Kentucky, points up the care that should be taken in the plan-

ning stages when construction in such areas is unavoidable. The reactivation of the dormant potential for landslides caused by construction or by other disturbances such as river undercutting may prove to be extremely costly and difficult to control.

California Division of Highways reports that a durability absorption ratio (DAR) be used for quality control of rock slope protection material, or riprap. The DAR combines two standard test methods currently being used by California, and it correlated well with 97 percent of the visual evaluation of the material. Other researchers discuss in two separate papers the stability of slopes. The first authors develop two approaches: an approximate method analogous to the Prandtl solution, and a numerical method based on plastic equilibrium. The second authors concentrate on a closed-form plasticity solution, and present design charts offer a useful range of friction angles and slope geometries.

The University of Washington analyzed the results of experiments using a specially designed stress meter to establish unique relationships between the precompression ratio, the coefficient of earth pressure at rest, and the liquid limit. Rutgers University studied the effect of embedment on the interaction between foundation and soil. It develops two newly defined dimensionless parameters, the amplitude reduction coefficient and the embedment factor, by which the dynamic response of the embedded foundation can adequately be determined.

Other engineers describe their method of construction control for a highway embankment on a weak soil. They used control charts based on an effective stress stability analysis as developed by an ICES computer program. These charts relate factor of safety to pore pressures measured during construction. Louisiana State University used gelatins of different stiffness to represent the placement of an embankment on a soft organic soil. The gelatin was studied for displacement and stress, through both an inked grid and a photoelastic fringe measurement. Among the cross sections studied was one using the trench section, parallel to the embankment, that sometimes serves as a waterway to transport bulk materials to the job. The results indicated that unless other considerations are overriding, the use of the trench section is not recommended.

The last paper by (University of Pittsburgh) and Northwestern University in-

cludes a statistical procedure to describe consolidation data, and an approximate method to estimate consolidation settlements. The technique is presented in graphical form and is illustrated by examples.

HIGHWAY RESEARCH RECORD NO. 323 is available for \$3.20 a copy from the Highway Research Board, Publications Department 805, 2101 Constitution Ave., N.W., Washington, D.C. 20418.

"BRIDGES, FOUNDATIONS, RETAINING WALLS"

The design and construction of highway bridges is an increasingly important and complex part of our road system. Research on the subject is being carried out in highway departments and private institutions throughout the country, and the results of ten such research projects have recently been published in the form of HIGHWAY RESEARCH RECORD NO. 302.

The first three papers cover the subject of developing more effective barrier rails for bridges. The Materials and Research Department, California Division of Highways, documents results of research into the effectiveness of California's type 9 bridge barrier rail and type 8 bridge approach guardrail. With modifications to the latter, full-scale tests showed that both systems will adequately retain and redirect a standard passenger vehicle impacting at an approach angle of 25 degrees and a speed of 60 mph. The Southwest Research Institute discusses the design theory for a new concept of energy-absorbing bridge rail using a fragmenting tube to absorb the energy from a vehicle's impact, and outline the process of building and installing such a rail. Further details on this type of rail are included in a paper of Texas Transportation Institute, who report that tests on the rail show that when the speed of the vehicle is sufficient to fragment the tube, the car will be redirected with a significant drop in the expected "g" level.

The New Jersey Department of Transportation discusses the thermal characteristics of bridge joint movements and present a possible solution to the problem of bridge and movements caused by heat transfer. Using an empirical approach, they have developed a reasonably accurate method for predicting concrete temperatures.

The problem of dynamic response of single span, simply supported horizontally curved highway bridges when subjected

to moving loads is treated by others. They analyze an idealized bridge under constant-force moving loads and develop impact factors for both flexural and torsional response of the bridge. The authors include factor design curves for various span lengths and central angles.

Anchorage of large-diameter column bars into the top beam of single-column bridge pylons is complicated by varying stress conditions, making it difficult to analyze the bridge's safety and efficiency. The University of Texas presents the results of a full-scale test of a specific anchorage design currently being used in Texas. They conclude that the design was adequate, but that the anchorage length provided under ultimate strength design should be limited.

The difference in rates of settlement between bridge decks and adjoining highway approach pavements often causes accidents and results in costly maintenance.

The Division of Research, Kentucky Department of Highways, summarized the data obtained from a survey of existing bridge approaches in Kentucky. Their paper documents the prevalence of this problem and relates the factors which cause it, such as abutment type, geological conditions and soil conditions. The companion paper presents the results of an attempt to determine if the settlement at bridge abutments is primarily a result of volume changes in the embankment or foundation.

The Bureau of Public Roads discusses the construction and application of a series of graphs used to show how changes in toe and heel lengths affect bearing pressures under footings of cantilever retaining walls. The paper includes several loading conditions, and discusses problems associated with each.

The final paper, reports on problems caused by failure of permanent steel forms used in construction of deck slabs. Causes of such failures are included, and standard specifications are suggested.

Industrial prophets delight in telling us that the age of automation" will revolutionize the earth in the next two centuries. Before this century is over, they predict, one American worker will be able to produce in a single seven-hour work day as much as he now produces in a week. What worries one amateur philosopher is this: Can those automatic machines be "set" so they will prod, pound, shake, punch, and rivet into the average worker enough good sense to make him use those four more days of idleness intelligently?

HARRISBURG SECTION

Henry L. Heck, Public Relations

On February 24, the engineering societies of the Harrisburg area held their annual joint dinner at the Penn Harris Motor Inn. The featured speaker was James A. Romano, V.P. and Member of the Board of Directors of Gannett, Fleming, Corddry & Carpenter, Inc. The evening was a great success.

The speaker at our March 8th meeting was Philip Amos, P.E., Assistant Chief Engineer, Bureau of Construction, Pennsylvania Department of Transportation. Phil's presentation was entitled, "Pre-qualification of Contractors". This briefing on the requirements of contractors proved to be a well-worthwhile topic for all attending.

On April 12, our National President, Robert E. Martzall, P.E., Vice-President of Capitol Engineering Corp., was the featured speaker. Bob's topic was "Observations on the American Society of Highway Engineers as a President and Consultant". President Martzall's presentation proved to be very interesting as he discussed his observations from a dual position.

The Annual Ladies Night was held May 8 at the Chalet in Dillsburg at which time our slate of officers for 1971-1972 was elected.

NEW MEMBERS

Walter E. Rimmer, Mechanicsburg, Pa., Contractor

ALTOONA SECTION

Charles J. Allison, Public Relations

The following members of the Altoona Section, A.S.H.E., have been nominated for office in that Section for the new term, beginning June 1, 1971:

President, James W. Baker, PennDOT; 1st Vice President, James S. Fluke, Kimball Engineers; 2nd Vice President, Melvin R. Schroeder, PennDOT; Secretary-Treasurer, Miss Diane Y. Delozier, PennDOT; Directors, three-year term: Warren A. Miller, Kimball Engineers; John Barone, Gwin Engineers; Lawrence G. White, Vipond & Vipond, Contractors.

The nominating Committee consisted of Lewis S. Reese, Chairman, Donald Mock, Harry Miller and Miss Delozier.

NEW MEMBERS

Stanley L. Belinda, Sidman, Pa., Penn DOT
Dennis W. Crock, Imler, Pa., PennDOT
Richard L. Fox, Altoona, Pa., PennDOT
Adolph A. Raymond, Gallitzin, Pa., Penn DOT
Raymond L. Smith, Duncansville, Pa., PennDOT

SOUTHWESTERN PENNSYLVANIA SECTION

Robert M. Sica, Public Relations

The Southwest Pennsylvania Section welcomed spring with open arms and proceeded to present an excellent meeting for its March get-together on the last Wednesday of the month. The Anderson Equipment Company, with an assist through its own Tommy Hays, offered a fine program dealing with various type of equipment distributed by the firm.

The meeting was preceded by a very amicable social hour. These pre-meeting gatherings find much favor with both members and guests.

During the course of the business session, presided over by President Terrence D. Conner, the Nominating Committee presented its slate of nominees for the new term. Those named were: T. D. Conner, of PennDOT for president; Henry J. Bunting for 1st Vice President; John S. Fleming for 2nd Vice President; David E. Baker for Secretary; and George H. Jenkins for Treasurer. The following were nominated to serve as directors for a three year term; William E. (Bud) Moyer, Richard G. Lively and William M. Graham. Also named to fill the unexpired term of Earnest Barber on the Board was Donald P. Ryan.

Barber, incidentally, is transferred to the Pittsburgh Section. Needless to say his loss to the Southwest Section will indeed prove an asset to the Pittsburgh unit.

The election immediately followed the presentation of the slate of nominees. There were no additional candidates named from the floor and all nominees were declared elected with the secretary instructed to cast the ballot making the election unanimous.

The meeting of April 28 was also an outstanding one with Kenneth Boedecker, of the United States Steel Corporation, as guest speaker. His subject dealt with the use of steel crash cushions along roadside obstacles including piers, walls, etc. He was able to graphically demonstrate their effectiveness through movies and slide shots. It proved to be one of the Section's most effective meetings and augers well for future sessions. President Terry Conner complimented the program committee, headed by Jim Griffin, for doing such a fine job in obtaining both timely and effective programs.

The format for the May meeting has undergone a drastic change from the usual in that it will be in the form of an outdoor outing to be held on the premises

of the Izaak Walton League on their acreages in the mountains above Uniontown. The locale is the Farmington-Ohiopyle Road just one mile from the intersection of U.S. Route 40 with L.R. 381.

President Conner has appointed a committee of John Fleming, William G. Graham, Robert M. Sica, John Coulson, Earnest Pagent, Paul Miller and James Wilson to handle all the arrangements. The menu will include juicy charbroiled steaks plus all the trimmings, with the committee and other volunteers doing the cooking over open outdoor pits.

A program in keeping with the time and setting is being provided by Jim Griffin and his committee. Members are asked and reminded to plan well in advance of the meeting date so that their reservations can be received in adequate time to accomodate everybody. Incidentally, this will be an excellent time to take that prospective member as a guest.

The Southwest Section lost one of its most popular and amiable members when Earl L. Hawkins passed away very suddenly on March 17. He was formerly materials engineer for the former Pennsylvania Department of Highways in District 12-0 and retired one year ago although only 62 years old. At the time of his death, Earl was working for the Latrobe Construction Company in charge of materials control on the so-called Uniontown by-pass construction project.

CLEARFIELD SECTION

NEW MEMBERS

Vasco A. Ordonez, Clearfield, Pa., Penn DOT
Prasitt Sawapruk, Clearfield, Pa., Penn DOT
Joseph Bakaysa, Curwensville, Pa., Penn DOT
Ira D. Clare, Lewistown, Pa., PennDOT
Max J. Humphrey, Milesburg, Pa., Penn DOT
John Temchack, Beccaria, Pa., PennDOT
Teofilo D. Valerio, Jr., Hyde City, Pa., PennDOT

FRANKLIN SECTION

NEW MEMBERS

Pat Antonio, New Castle, Pa., PennDOT
Clarence F. Hood, P.E., Hudson, Ohio, Materials Producer
Charles L. Jamison, P.E., Grove City, Pa., PennDOT
Thomas C. Tommelleo, Mahoningtown, Pa., PennDOT
Willard W. Weikal, Greenville, Pa., Penn DOT
David E. Irvin, Sarver, Pa., Materials Salesman
Eugene M. Lerch, Clarion, Pa., PennDOT

EAST PENN SECTION

Fred W. Wolf, Public Relations

The following slate of officers has been nominated for the year 1971-1972:

President, Fred W. Wolf; 1st Vice President, William Boykas; 2nd Vice President, Bernard W. Schwartz, P.E.; Secretary, David Heinly; Treasurer, Michael P. Quigney; Director - 3 years - Michael Heylmun, Robert L. Brown, P.E., and Raymond Tulhill.

The Section held their annual Ladies Night on March 26 at the Mahoning Valley Country Club. The event was indeed one of the finest and well attended affairs in quite a while. Again, we must praise those on the Special Events Committee who did all the hard work that goes into such an event. Of course, one must not forget that the presence of the members really made it a success.

The April meeting held at the Sportsmen Restaurant, Blakeslee, Pa., was a combined meeting between our Section and the North East Penn Section. The combined meeting was chaired by President McTish. We were honored to have the National President, Robert E. Martzall, P.E., address the Sections. He spoke on the importance of the Sections' developing long term goals, "That this can only be developed under the guidance of the Board of Directors, whose terms of office permit a better base for perpetuation and evaluation of programs and goals enacted," a point of great importance.

The food was excellent and a fine atmosphere existed, accompanied by a pianist furnished by Mr. Al Roman, owner and Senior Member of the East Penn Section.

NEW MEMBERS

Albert P. Joseph, Pine Grove, Pa., Penn DOT
Robert H. Keck, Nazareth, Pa., Materials Producer
John A. Lapping, Stroudsburg, Pa., Contractor
Albert P. Dusey, Jr., Allentown, Pa., P.D.H.
Larry L. Geiger, Allentown, Pa., P.D.H.
Frederick M. Heylmun, Bethlehem, Pa., Material Producer

INDIANA SECTION

Louis J. Serian, Public Relations

A directors meeting was held at the Indiana District Office on April 7, 1971.

Plans were formulated for future meetings of the Indiana Section of American Society of Highway Engineers.

The Nominating Committee, With T.E. Farabaugh as chairman, have selected the

following slate of candidates to serve for the 1971-1972 year:

President, John Ralston; 1st Vice President, Lou Serian; 2nd Vice President, Tom Farabaugh; Treasurer, Dick Haines; Secretary, Ed Leone; Directors - 3 years - Jim Parsons, Joe Schork, Earl Neiderhiser; Directors - 2 years - Dick Kerr, John Patrick, Danny Welch; Directors - 1 year - Larry Dilts, Wendell Neal, Dick Smith.

The April meeting was held on Wednesday, April 28, at the Rustic Lodge, Indiana, Pa. A social hour and buffet style dinner was arranged.

A program was presented by James R. Barnicle, P.E., Design Engineer for New Enterprise Stone & Lime Co., Inc. His topic was "Prestressed Bridge Construction" (Slide Illustrated Talk).

On June 4th a social hour, dinner and dance is scheduled at the newly remodeled Vets Club at Indiana, Pa. This will be the 5th anniversary of the Indian Section. A large turnout is expected for this annual affair.

NEW MEMBERS

Danny Zimmerman - PennDOT
Willis Tyger - PennDOT
Charles Lezanic - PennDOT
Duane Neal - PennDOT

PITTSBURGH SECTION

Robert Haynos, Public Relations

The nominees for the various offices of the Pittsburgh Section have been made by the Nominating Committee. The nominees are: President, G. Richard Wright, P.E.; 1st Vice President, Howard C. Schubel, Jr.; 2nd Vice President, Rudolph Melani; Secretary, William J. Dobias; Treasurer, M.F.L. Stewart, Jr.

Nominees for Board of Directors are: one year terms - E.J. Kinter, R.R. Gedrock, W.M. Buck, P.E.; two year term - Howard G. Hartman, R.S., W.J. Katzenmeyer, E.V. Malacarne; three year term - Michael Gittens, William R. Kozy and Dennis DeMarco.

The date of the annual meeting and the election of officers is May 12, 1971.

The Section's annual 'Ladies' Night banquet and outing was held Thursday, April 15, 1971 at the Holiday House. This affair was well attended and a good time was enjoyed by all.

New memberships in the Section are: W.J. Babilon, A.J. Cousin, P.F. Galiardi, N. Hoffman, F.J. Ioli, V.F. Mannella, C.E. Moore, Frank Babich, F.J. Kukurin and W.J. Diamond, D. Carapellucci, J.W. Fanzo, W.F. Gerde, H.A. Maurer, Al Monzo, D. McNeil, III, R.B. Ross, A. Sciuillo, E.C.

Tetmyer, T.E. Wester, F.J. Casilli and R.J. Von Vreckin.

It is interesting to note that the Sections membership drive has now taken the total membership over the 200 mark, a new all-time-high and a target set several years ago. Congratulations to the Membership Committee Chairman, Ernie Malacarne for a job well done.

NEW MEMBERS

James G. Dunmire, Pittsburgh, Pa., Materials Producer
Winfield S. Good, Irwin, Pa., PennDOT
Arthur B. Hopperstead, P.E., Verona, Pa., Contractor
John W. Metzler, Tarentum, Pa., PennDOT
James R. Sismour, P.E., Pittsburgh, Pa., Contractor
Lawrence E. Toomey, Pittsburgh, Pa., Equipment Salesman
Alan M. Weiss, Monroeville, Pa., Contractor
James R. Weichman, Pittsburgh, Pa., Materials Sales

DELAWARE VALLEY SECTION

Howard K. Mintzer, Jr., Public Relations

Well over one hundred were in attendance for a very informative meeting which took place on Tuesday, April 29th, at the Fort Side Inn, White Marsh. State Senator, John Stauffer, gave a most timely and informative talk entitled "Capital Budget for Highways-Procedures and Problems". Senator Stauffer, truly an expert on highway programming procedures in Pennsylvania, pointed out some very serious restrictions to the highway program which came about under recently enacted constitutional amendments. In addition he cautioned that strong forces are at work in both houses to attack the gas tax for mass transit needs.

In addition to Senator Stauffer's presentation, the meeting offered an opportunity to welcome Joseph P. Synkonis "home". Joe recently appointed District 6-0 Engineer, is well known in the Delaware Valley Area for his many years of contribution to the highway industry, had been working in the Harrisburg and Pittsburgh areas for several years. He was heartily welcomed by his many friends in the Delaware Valley Section.

The following officers were elected at this meeting:

President, Howard G. Minckler; 1st Vice President, Robert L. Rowland; 2nd Vice President, Robert A. Slaw; Treasurer, Russell C. Lyons; Secretary, A.A. Antonucci; Directors - 3 year term - Walter N. Norley, Paul C. Peterson and Joseph P. Puchalski.

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NEW MEMBERS

Daniel C. Cremins, West Chester, Pa.,
Materials Supplier
Stephen B. Lester, P.E., Flourtown, Pa.,
PennDOT
Michael J. Torres, Huntingdon Valley, Pa.,
Contractor

NORTH EAST PENN SECTION

Leonard Gallucci, Public Relations

A meeting of all Committee Chairmen was held at the Elks Club, Rt. 307, Moosic Street, on Tuesday, April 13th. The meeting was held to finalize plans for the 9th Annual Convention to be held at the Tamiment Resort and Country Club on May 20, 21, 22, and 23rd, in the beautiful Pocono Mountains.

The reports given by all committee chairmen indicates that the Ninth Annual Convention will be one of the finest ever held by the Society. Thomas J. Harrington, General chairman of the affair, thanked all the committee members for a fine job. On attendance were: Joseph Swegel, Clifford Christ, Paul Lucas, Joseph Notartomas, Joseph Ostroski, David Jones, Jerry Ceccoli, John Bonifonte, George Parrs, Albert E. Peters, Thomas Kane, Leonard Gallucci, Harold Kimble, John Kaminski, and Robert Morden. We ask all members of the Society to act promptly if they are going to attend, to make sure of their reservations.

Our joint meeting with the East Penn Section of the Allentown area was held at the Sportsman Club, at the intersections of Rts. 940 and 115 on Friday, April 16th.

The new officers of the section for the 1971-1972 season will be installed on Tuesday, May 4th, at the Elks Club, Moosic Street, Scranton, Penna.

The new officers are: President, Paul Lucas, P.E., H.B. Sproul Construction Co.; 1st Vice President, Harold Kimble, Erie/Lackawanna Railroad; 2nd Vice President, John Robinson, B.G. Coons Construction Co.; Secretary, Robert Morden, PennDOT; Treasurer, Joseph Notartomas, PennDOT. Directors - 3 years - Joseph Swegel, PennDOT; John Kaminski, Kaminski Bros; Leonard Gallucci, Ezra Stipp Construction Co. Directors - 2 years - Clifford Christ, Wyoming Sand & Stone Co; Allan DuBosar, North East Engineering Co.; John Finn, PennDOT. Directors - 1 year - Thomas Kane, Albert E. Peters Associates; Ralph Lamont, Central Penn Quarry, Stripping and Construction Co.; George Parrs, PennDOT.

The Ninth Annual Convention of the Society, to be held at the Tamiment

Resort and Country Club is nearing the home stretch, and we hope that everyone has made plans to attend, because reservations are coming in fast. A reminder to all golfers to bring their best clubs along for the golf tournament on Saturday, May 22nd, and also their lovely wives for a 4-day vacation in the beautiful Pocono Mountains.

The programs are cut to a minimum, so that you and yours can relax and have fun and entertainment.

The North East Penn Section, your host, again invites you and yours to the Tamiment Resort and Country Club in the beautiful Pocono Mountains, May 20, 21, 22, and 23rd, to a Guaranteed Good Time - Plan to Attend.

NEW MEMBERS

Clifford J. Hoffman, Scranton, Pa.,
PennDOT
Robert I. Holdren, Moscow, Pa., PennDOT
Frank Kolsun, Olyphant, Pa., PennDOT
Robert A. Stanek, Scranton, Pa., Consultant

F. RICHARD FOUGHT PASSES

F. Richard Fought, of Selinsgrove, past president of the Williamsport Section of the American Society of Highway Engineers, suffered a heart attack and expired on Thursday, April 8.



FOUGHT

Mr. Fought and his wife had been cruising on the Susquehanna River at Sunbury during the afternoon. As darkness approached, they decided to dock their 21-foot cabin cruiser for the night. About a quarter mile from shore, the craft ran out of gas. Mr. Fought took a 15-foot pole and attempted to steer the boat into shore. It was during this time that he was stricken and collapsed.

Two men in an aluminum row boat boarded the craft and also attempted to

steer the craft to shore. The swift 12-mile per hour current proved to be too much for them. After some time a power boat was summoned and towed both crafts to shore.

Upon reaching shore, Mr. Fought was given heart massage and mouth-to-mouth resuscitation in an attempt to revive him. When the efforts failed, Mr. Fought was taken to the nearest hospital where he was pronounced dead-on-arrival. Mrs. Fought was taken to the same hospital, treated for shock and released.

The late Mr. Fought, 45, was a native of Hughesville, Lycoming County. He was graduated from Hughesville High School in 1943. He attended Bucknell University and served in the U.S. Air Force as a pilot.

He worked for the former Pennsylvania Department of Highways, and later became affiliated with B.E. Reichenbach, Inc., a Selinsgrove contracting firm. At the time of his death, he was serving as vice-president of the latter firm.

Dick had been an active charter member in the Williamsport Section since its inception in 1965. He became president of the Section in 1967 and served for one year. Dick was also serving his first year as a director when his untimely death occurred.

Mr. Fought was a member of Wesley United Methodist Church, Selinsgrove; the American Society of Highway Engineers; Muncy Lodge No. 299, Free and Accepted Masons; Williamsport Consistory; Irem Temple Shrine, Wilkes-Barre; Susquehanna Valley Country Club; Loyal Order of Moose Lodge No. 1173, Selinsgrove; American Legion Victory Post No. 25, Selinsgrove; and the Fraternal Order of Police.

Mr. Fought is survived by his wife, Blanche; two daughters, Valli and Leigh, both at home.

Burial was in the Pleasant Hill Cemetery, Hughesville.

MEMBERSHIP CERTIFICATES OF SOCIETY TO BE DATED

The national Board of Directors in their meeting in Carlisle on April 23rd unanimously agreed that in the future all Society Membership Certificates issued by national headquarters to new members will bear the date of issue. They felt that dating the certificates would add a little more prestige to this instrument.

Australia's native trees are evergreens, which keep their leaves throughout the year but lose their bark in winter.

PAUL VIPOND HONORED

Paul K. Vipond, of Hollidaysburg, Pa., a Senior Member of the Altoona Section, A.S.H.E., has been elected the thirty-sixth president of the Constructors Association of Western Pennsylvania.

Paul is a charter member and one of the organizers of the Altoona Section. He served a full three-year term on the national Board of Directors of A.S.H.E. He and his brother, Stitler Vipond, also a Senior Member of the Altoona Section, organized and operate the heavy and highway construction firm of Vipond & Vipond, which firm is well known as very active throughout the western Pennsylvania area.

Paul Vipond is a graduate of Hollidaysburg High School and Cornell University, where he majored in Engineering and Business Administration. During World War II, he served with the Army Corps of Engineers and attained the rank of Major.

His service to the Association started in 1955 and during the past sixteen years, Paul has devoted much of his personal time and efforts to the organization's endeavors. He was elected to the Board of Governors in 1963 and then to the Executive Board in 1965. During this time, he has served on several committees, principally the Public Relations Committee which he chaired for three years.

He also served on the Board of Directors of the Associated Pennsylvania Constructors, and on several committees of the state association.

Aside from his busy schedule in the construction industry, Mr. Vipond is quite active in local and community affairs. He is a Trustee of the Bradford Junior College and a Director of the First National Bank of Altoona.

Mr. Vipond and his wife Dorothy reside in Hollidaysburg, and are both avid golfing and skiing enthusiasts. They have three children, Jane, John and Dinah.

IRS LAWS IMPOSE NEW BURDEN ON ALL SOCIETY SECTIONS

New Federal tax laws effective for the 1970 tax year to be implemented by the Internal Revenue Service will impose a new burden on all sections of A.S.H.E. One area of change in the tax laws deals with those organizations who have been granted tax exemption because of their nonprofit charters. In order to keep a closer check on the activities of all such organizations, each section will now be

required to file a tax form, IRS No. 990, with their particular IRS office in their district at the end of their fiscal year of business closing May 31st. Previous to this change IRS was satisfied with one consolidated tax return filed by A.S.H.E. national headquarters, based on financial reports submitted by each section. While each section till now be required to file individual reports, the consolidated report of the Society is also still required. Tax forms for the above purpose and instructions covering submission, etc. will be forwarded after June 1st by national headquarters to each section.

A.S.H.E. MEMBER IS NEW FRANKLIN DISTRICT ENGINEER

Chauncey P. Saupp, P.E., Williamsport, a professional engineer with the State Department of Transportation, is the new District Engineer of the seven-county Northwestern Pennsylvania District 1-0. He succeeds A.R. Rowles, who resigned last month to enter private industry.

Saupp, with 18 years of service in the Department, has served in various engineering capacities in PennDOT's Clearfield District and more recently in the Montoursville District.

The Franklin District comprises the counties of Crawford, Erie, Forest, Lawrence, Mercer, Venango and Warren.

In addition to his Commonwealth service, Saupp held various engineering positions with the U.S. Army Corps of Engineers at Baltimore, Md.; P.J. Meade, Inc., engineers and contractors, New York City; the Tennessee Land and Mining Corp., Knoxville; and also was associated with Dr. D.R. Mitchell, consulting engineer, State College.

Commenting on the promotion of Saupp, Secretary Kassab said: "This man is a dedicated engineer. His well-rounded experience in highway and industrial engineering equips him to provide the people of northwestern Pennsylvania with an efficient highway network to meet present and future needs. This is a merit promotion."

A registered professional engineer, Saupp attended schools at Waymart, Houtzdale and Montrose as well as Bucknell and Pennsylvania State Universities. He is a member of the National Society of Professional Engineers, American Society of Highway Engineers, and the American Society of Mining, Metallurgical and Petroleum Engineers.

A native of Houtzdale, Clearfield County, Saupp is married to the former Delta Wynn, of Ramey, Pennsylvania. A

daughter, Mrs. Jack Sober, resides at Allentown.

DIRECTORS CHANGE POLICY ON DUES ASSESSMENTS

The national Board of Directors of A.S.H.E., meeting in Carlisle, Pa. on April 23rd approved a change in policy involving the assessment against membership dues effective immediately. The new policy will require all sections of the Society to remit the amount of dues assessment, in accordance with the schedule for each membership classification, on all membership dues paid after March 1st each year. Previously the policy of the Society has been to make an assessment only against all membership dues paid on or before March 1st of each year and no assessment would be made on any dues collected from members after March 1st to the end of the current fiscal year. Sections will be notified in official correspondence of this policy change, together with the mechanics of submitting payments to national headquarters.

HARRISBURG MEMBER RETIRES

Jay W. Flory, who has resided at the Riverhouse Apartments, Harrisburg, and who is a Senior Member of the Harrisburg Section, A.S.H.E., and until recently was assistant director of the Bureau of Transportation, Pennsylvania Department of Transportation, terminated a career of almost 40 years of commonwealth service when he retired on December 30.

He was honored at a testimonial dinner by more than 100 friends and associates at the Penn-Harris Motor Inn, Camp Hill.

Flory joined the State Highway Department in 1932 after his graduation from Albright College. He served in various capacities at the Northampton County Maintenance Headquarters before being transferred to Harrisburg. He was in charge of administrative operations in the Bureau of Maintenance, supervising its budget of more than \$200 million from 1960 to 1966.

In 1966, Flory was promoted to assistant director of the bureau which has more than 10,000 workers in all 67 counties.

Flory started his career under PennDOT Secretary Victor W. Anckaitis, then Northampton County superintendent, State Highway Department, and retired "under the same boss."

He is a member of the American Association of State Highway Officials and American Highway Officials of the North Atlantic States.

1970 - 1971 NATIONAL OFFICERS

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MEMBERSHIP FACTS

The strength of the Society continues to grow, as indicated by statistics on the in national headquarters. At this writing, one hundred seventy-nine new members were accepted by the Society since June 1, 1970. Against this gain, however, records show that 113 members were dropped from the rolls because of non-payment of dues or other reasons, leaving a net gain of sixty-six for the current fiscal year. The total membership at this time is recorded at 1765. The membership by sections is:

Harrisburg Section	310
Clearfield Section	104
Franklin Section	143
Altoona Section	119
Southwestern Pa. Section	106
Williamsport Section	102
East Penn Section	131
Indiana Section	127
Pittsburgh Section	208
Delaware Valley Section	277
North East Penn Section	138
Total	1765

"FROST ACTION: BEARING, THRUST, STABILIZATION, AND COMPACTION"

Any soils or highway engineer can readily expound on the damage that frost can do to highway subgrades and bases, but few of them can tell just how the

damage occurs or how it can be accurately predicted. A series of five papers on the subject, compiled into one volume under the title HIGHWAY RESEARCH RE—CORD NO. 304, has recently been issued by the Highway Research Board and will be most valuable to soil design and construction engineers.

In the first paper, the U.S. Army Cold Regions Research and Engineering Laboratory presents a detailed explanation of frost action. It explains how heat extraction rate, freezing penetration rate, and soil moisture suction are of considerable importance in predicting the rate of frost heaving. Soil structure and gradation affect frost susceptibility in such a way that the heaving rate may be altered by either the removal of fines or the addition of coarse aggregates. These factors play an important part in the consideration of marginal sources of materials, and thus in the conservation of natural aggregate resources.

They propose in the second paper that the frost susceptibility of a material can be estimated accurately by running California Bearing Ratio tests after subjecting it to several freeze-thaw cycles. The correlations and data presented in this paper indicate that this test will help the engineer in his selection of pavement types and structures.

Another paper is devoted to the lateral thrust developed by frozen soils, and the effect of this thrust on retaining walls and abutments. The author points out that

the temperature of the frozen subsoil when it begins to be subjected to a temperature increase is of great importance. A frozen sand layer heated from an initial 0 degrees will exert lateral pressure fifty times greater than when it is heated from 30 degrees.

Two researchers from the University of Illinois suggest that there should be a closer relationship between the laboratory tests under which stabilized materials are examined for the effects of freezing and thawing and the actual conditions to which they are likely to be exposed in practice. They also suggest that, because such factors as cooling rate and duration of freezing may substantially affect the result, they should be studied further. In presenting a method for developing new parameters the authors note that standard test procedures may have to be altered to accommodate recent findings.

In the last paper, three researchers from Purdue University present some interesting observations regarding compaction and strength relationships in low temperatures. They advance the idea that cold but not frozen soils could be used to fill construction by increasing the "effort of compaction without harmful effects to strength characteristics."

However, the authors point out that "operations of this sort are not envisioned in the normal specifications — and cannot be undertaken with confidence until a number of questions have been answered."

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Please notify us when you change address !