

THE ASHE scanner

VOLUME XXI, No.2

THE AMERICAN SOCIETY OF HIGHWAY ENGINEERS

NOVEMBER 1985

North East Penn

William J. Leseck, Public Relations

The Northeast Penn Section started its 1985-86 year with "Ladies Night" social function held at Jay's Lounge in Scranton on September 10, 1985.

Section President Foster C. Sankey, having recently returned from his honeymoon (congratulations Mr. and Mrs. Sankey) welcomed 56 members, wives and guests to the first of three annual Ladies Nights. The second will be a Valentines Day Dinner Dance in February, and the third will be in May for the occasion of installation of officers.

It was a fun-filled evening, with an open bar through-out the night, a delicious buffet, and good fellowship. John Kolanader, Jim Lewis and Foster Sankey shared with the group, some of the good times they had at the May National Convention.

The second meeting was held on October 8, 1985 at Yantorn's Restaurant in Dunmore, Pa. The guest speaker was Mr. Dave Dillion, President of the B.G. Coon Construction Company. Dave gave a very interesting and informative program on the demise of the Butler Street Bridge in Wilkes Barre, Pa. He also included some video footage of the jacking of the Davis Street Bridge.

We of the Northeast Penn Section are very sorry to report the death of our member, Ralph Lamont. Ralph was a charter and life time member of our section and served faithfully in many capacities. He was a past president and a member of the Board of Directors. He was very well known, not only in our local chapter but by members throughout the state. Prior to his retirement he was vice president of Central Penn Industries. To his wife and family we extend our deepest sympathy. †

Ohio Sections plan for 1986 National ASHE convention as biggest and best yet.

Circle May 15-18, 1986 on your calendars. Hosted by the Western Reserve and Cuyahoga Valley Sections, the 1986 convention will be at the Holiday Inn, Richfield, Ohio, between Cleveland and Akron at the Ohio Turnpike's Exit 11. Billed as "In the Heartland of Highways," this convention is chaired by Chuck Luff, ASHE's immediate past National President. The active planning committee promises an outstanding program, worthy of the attendance and support of all our members and friends.

Features include pertinent technical sessions, over 40 exhibit booths in the

Central Holidome "Fun Center," great entertainment, various fascinating women's programs and other local tours, golf, as well as fine meals and accommodations.

Further details are forthcoming. Meanwhile, for your planning for lodging reservations, exhibit space or specific information, write:

ASHE 1986 National Convention Committee

P.O. Box 470

Tallmadge, Ohio 44278

Your participation will make this 24th National Convention the best and biggest in our growing Association's history. †

N. Central W.V.

This Chapter, spearheaded by Bill Pulice, President, has an extremely active group on the move this year. In April, a fund-raising dinner was held to benefit the Scholarship Fund, with the results of a \$500 Scholarship being awarded to Renata Javier at the May meeting. The recipient's parents are Bonifacio, an engineering technician with the West Virginia Department of Highways, and Emilia, a clerk at First American Bank of Virginia. Renata, one of six children, is attending West Virginia University, majoring in Civil Engineering. He maintained a 4.0 average and was number one in his class of 260 at Lewis County High School. He has served as President of the National Honor Society and was awarded the Golden Horseshoe Award,

the Daughters of the American Revolution Award, and a participant in Know Your Government Day in Charleston. This outstanding young man wishes to become a part of the engineering field which he feels "reaches the life of many from roads for easier travel to the everyday use of appliances." The Scholarship Program is an annual project of this Chapter.

In June, the members plus many invited guests, toured the Stonewall Jackson Dam Project in Lewis County. After viewing the dam site and the ever awe-inspiring evidence of engineering technology in use to construct a huge project of this type, a slide show of the dam construction, phase by phase, was presented by Bill Woodburn, Resident Engineer for the US Army Corp of Engineers. The tour was guided by Lou Hutcherson, Project Supervisor; Rodney Young, Materials

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Technical Briefs

VERGLIMIT (ICE RETARDANT) SURFACE MIX

PennDOT placed their first bituminous surface utilizing an ice retardant additive. The project was located on Interstate 80 for a distance of 3,500 L.F. on the east-bound lanes and adjacent to the Ohio State line. The purpose of utilizing the ice retardant surface mix here was to improve the slippery problems encountered near the Pennsylvania State line, as the State of Ohio utilizes basically the bare pavement concept during winter snow removal operations and Pennsylvania has been steadily reducing their salt applications during winter storms.

The de-icing additive primarily consists of de-icing salts and caustic soda. The additives were added to the above project bituminous surface mix 5% by weight. To curb the immediate loss of the de-icing salts due to weather elements, the particles are coated with linseed oil. The trade name of the product used on this project was Verglimit.

Highway Engineers that have used this material primarily have designated it to be placed on bridges, traffic circles, steep grades approaching a stop condition, or some unusual road area that needs extra attention from a safety view point.

The Verglimit particles are dispersed throughout the entire surface mix and are constantly released thru traffic induced abrasion. Skid resistance of the pavement is no problem, providing care is taken in the initial application.

The effective life of this product is directly relevant to the life span of the bituminous mix itself and as traffic wears down the surface, new particles of the de-icing agents are released.

New York State DOT has been using this product now for over 5 years and increased its use in 1985. The city of Allentown, Pa. has also used this product. †

NATIONAL CONCRETE MASONRY ASSOCIATION ANNOUNCES 1986 CONVENTION AND EXPOSITION

The National Concrete Masonry Association (NCMA) announces its plans for its convention and tradeshow, the Concrete Industries Exposition (CIE '86) to be held January 19-22, 1986, in San Antonio, Texas. Over 100 exhibitors will be on

hand to display a wide range of products, equipment and services for the concrete masonry industry.

To compliment the Exposition, NCMA is sponsoring a series of educational seminars, speeches, and special sessions with a common theme -- "The Quest for Excellence." The keynote speaker will be Dr. Charles Garfield, author of Peak Performance in Sports and a soon to be released book on Peak Performance in Business. Dr. Garfield's subjects for his studies are high achievers in business, sports and the arts.

Other sessions will focus on production in the block plant, the ever expanding concrete block paver market, energy efficiency and industry promotion. Of special interest will be the announcement of awards for NCMA's 3rd Annual Concrete Block Paver Design Competition.

The CIE is the only national show for the concrete masonry industry. The 1986 Expo, the 36th for NCMA, will be held at the San Antonio Convention Center, January 19-22, 1986. †

3RD ANNUAL INTERNATIONAL BRIDGE CONFERENCE

The Third Annual International Bridge conference, sponsored by the Engineers' Society of Western Pennsylvania, will be held June 2, 3 and 4, 1986, at the Pittsburgh Hilton Hotel, Pittsburgh, PA.

Plans are well under way for this highly successful forum on one of the world's most dynamic issues. The International Bridge Conference is intended to be the most comprehensive, broad-based and authoritative forums on bridges. Its purpose is to encourage and promote the interchange of information, procedures and techniques related to bridge projects between owners, researchers, practicing engineers, suppliers and contractors.

Highlights of this Conference include a presentation by the featured State of Florida, an exhibition of over 60 companies featuring bridge-related products and services, seminars on the most progressive topics in the industry and tours of Pittsburgh area bridges and bridge-rehabilitation projects in progress.

The officers of the conference are: General chairman Stephen H. Dake, Dick Corporation
Executive Director Mary Jean Edgar, Engineers' Society of Western Penna.
Technical Program Chairman Carl Angeloff, American Institute of Steel Const.
Seminars Chairman James D. Dwyer, American Bridge Division, U.S. Steel Corp
Attendance Chairman David E. Pinyot,

Nicholson Construction Co.

Exhibits Chairman Henry A. Salver, GAI Consultants, Inc.

Bridge Tours Chairman Lisle E. Williams, PennDOT

Student Award Chairman Thomas Stockhausen, C.E. Maguire, Inc.

Further information on the IWC can be obtained by writing to International Bridge Conference, c/o Engineers' Society of Western Penna., Westin William Penn hotel, 530 William Penn Place, Pittsburgh, PA 15219.

or by calling 412-261-0710.

The Conference is seeking papers on the following topics:

Financing Approaches for Construction and Rehabilitation

Current International Perspectives

Protection Systems for Steel and Concrete Bearings, Joints and Expansion Dams

Load Testing and Instrumentation System Inspection Programs Update

Construction Techniques and Planning

Accommodations for Traffic Control

Cost and Schedule Impacts Through Incentives and Disincentives

Application of CADD Techniques

Modern Methods of Enhancing Durability

This will be the most highly-attended Conference to date, as the Bridge Conference continues to reach a wider audience and upholds its reputation for being THE Conference on bridges. †

TECHNICAL BRIEFS

Controlled Low Strength Material (CLSM)

History

The development of controlled low strength material (CLSM) has taken many turns to where and what it is today. Biblical references to materials could be considered the earliest recordings of CLSM considerations. Man has always been fascinated by the make-up of rocks and stones. It was Joseph Apsdin's work in the 1 50s that began the study of Portland Cement and uses for concrete. He thought he had duplicated a stone that was mined on the Isle of Portland.

Around 1900 scientists and engineers were developing special areas of study.... materials, soils, steel, cement, concrete, wood, etc. In a way, this specialization hindered the development of some materials such as CLSM. Contractors and ready mixed concrete producers have for years adjusted their concrete mixes for what was considered "low strength" for mud mats and/or general structural fills (2500 psi).

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Harrisburg

Brian A. McCooa, P.E., Public Relations

Two popular events marked the start of the 1985-86 program year locally.

On Thursday afternoon, September 19 over 65 members and guests were on hand for a joint ASHE-PSPE Picnic at the Monaghan Township Fire Facilities in York County. The fun social event featured outdoor contests, a delicious dinner, and an evening of fine fellowship.

The regular first-Monday-of-the-month dinner meetings resumed October 7th at Harding's Restaurant in Camp Hill.

Dr. James Collins, President of GEO/HYDRO, Inc. delivered an informative talk on the operation and usage of Global Positioning Systems (GPS), a space based radio navigation survey system. Wide ranging applications and deployment of the system were shown in areas ranging from Alaska to Pennsylvania.

Section President Leonard C. Bellanca, P.E. is pleased to announce the section's officer team for the current year. Those serving include: Thomas R. Benyo, P.E., 1st Vice President; William M. Scott, P.E., 2nd Vice President; M.G. Patel, P.E., Secretary, and Dale C. Mellott, P.E., Treasurer. Section Directors include: Victor D. Macomber, P.E., Robert E. Parks, P.E., John B. Jung, P.E., Joseph V. Capuano, P.E., Ronald J. Cominsky, P.E., and Gerald F. Koons, P.E. Benjamin D. Rocuskie, P.E., is the Immediate Past President. Robert M. Peda, P.E. serves as Assistant Secretary and Profile Editor.

The Harrisburg Section cordially extends an invitation to members of other ASHE Sections to attend one of our regular dinner meetings if your travel should bring you to Central Pennsylvania. Meetings are held the first Monday of each month at Harding's Restaurant in Camp Hill. You may call in advance for information or reservations at 717-761-1502. Dinner and Program run from 7:00 to 9:00.†

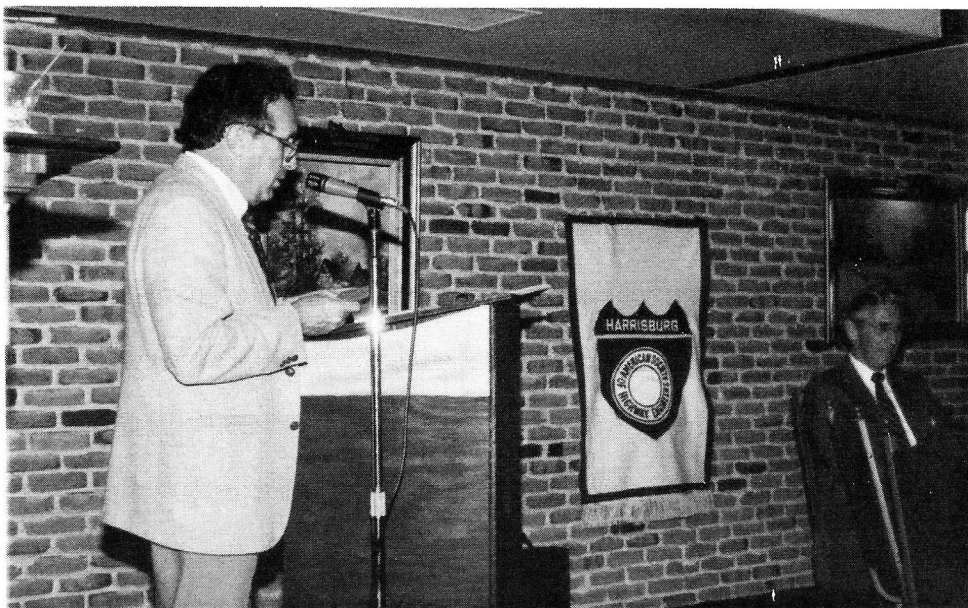
HARRISBURG SECTION

A new member certificate is presented to Mr. N. Jackson of the Harrisburg Section at an October 7th dinner meeting.

1985-86 Immediate Past President Benjamin D. Rocuskie, right, turns over the gavel to Leonard C. Bellanca at the May 4th Annual Meeting of the Harrisburg Section.

A portion of the head table at the May 4th Annual Meeting of the Harrisburg Section in Hershey, Pennsylvania.





Technical Briefs

It was not until the early 1970s before some individuals considered the major ramifications of the extended uses, manufacturing and control of low strength materials (0 to 1200 psi). These considerations lead to the formation of a company known as K-Krete, Inc. (Kuhlman Corp., Toledo, Ohio and The Detroit Edison Co., Detroit, Michigan) and the granting of four U.S. patents dealing with materials, use and control of CLSM. The products, K-Krete mixes, were technically marketed and sold through a franchise and licensing agent agreements.

By 1979 the construction market had many products being marketed as a K-Krete mix or equal. Each non-K-Krete producer had their own brand name and seemingly very little information as to proper use or control. It was becoming evident that technical information, developed by many individuals, was not being disseminated. It was the American Concrete Institute (ACI) that saw fit, in 1983, to form an international committee to write the "state of the art" for CLSM. This committee, known as ACI C229, has been working on this writing task and hopefully will have their initial assignment completed in 1986.

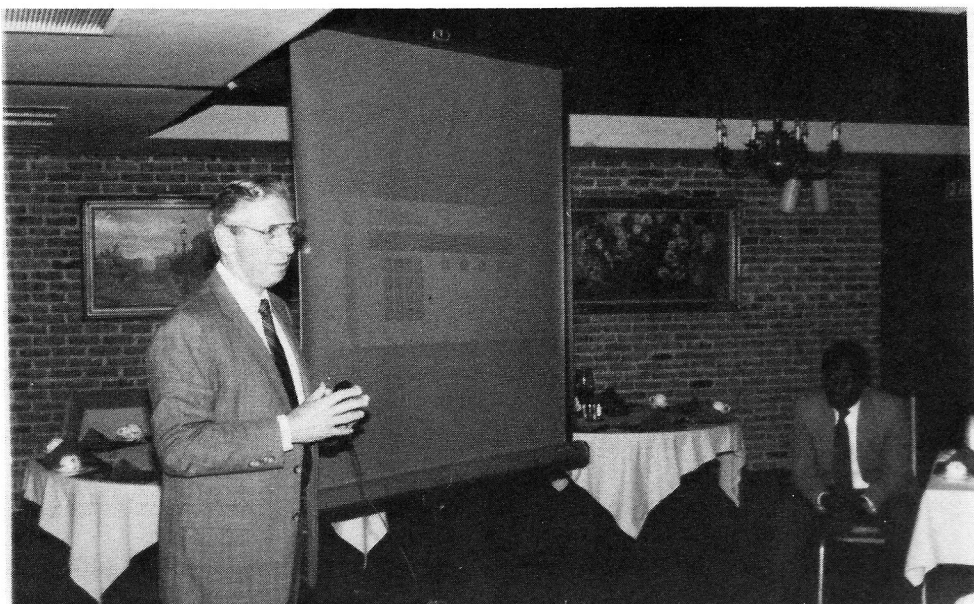
Materials

Materials for the manufacture of CLSM usually consist of cement, flyash, aggregate filler and water. The combination of these materials will naturally depend on the specific end use requirement. Non ASTM materials can be, and have been, used. The most important material test for preparing a mix design is gradation.

Uses - End Result Requirements

The uses for CLSM mixes are only limited to ones imagination. To date, a CLSM mix has been used for backfill,

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HARRISBURG SECTION

Mr. Leonard C. Bellanca outlines 1985-86 Section goals at the initial Section dinner meeting October 7th in Camp Hill.

Dr. James Collins addresses the Harrisburg Section at the October 7th dinner meeting in Camp Hill.

Over 70 members and guests attend the May 4th Harrisburg Section Annual Meeting and Ladies Nite at the Hershey Italian Lodge.

Charleston W.V.

Walter Imler, Public Relations

The Charleston W.V. Chapter of the American Society of Highway Engineers on October 1 held a Commissioners Night Dinner and Reorganization Meeting. Over one-hundred Department of Highway employees, Consultants and Contractors were in attendance.

Walt Imler, Buchart-Horn, Inc. (Altoona Section) was M.C. and presented a plaque to Commissioner William S. Ritchie for his dedication to the highway industry.

Commissioner Ritchie in his remarks noted his praise of an organization in which highway employees, contractors and consultants can socialize and exchange concepts of the highway industry together.

Mike Tiani, National 1st Vice President welcomed the reorganization of the Chapter and related the history of ASHE and the continuous help from the national officers and directors to the chapter.

Jim White, D.O.H. was elected President; Mike Epperly, Buchart-Horn, Inc. elected Treasurer and Dot Turley, D.O.H. as Secretary. The following people were nominated as interim directors to appoint a 1st and 2nd Vice President and committees from the group: Mike Clouser, Contractors Assoc.; Ed Kelling, Flexible Pavement Assoc.; David Hibbs, Cummings; Bud White HNTB; John Russell, Dir. Design D.O.H.; Philippe White, Personnel D.O.H.; Fred Vankirk, Ch. Hwy. Eng. D.O.H.; Norm Roush, Asst. Ch. Hwy. Eng. D.O.H. and Darrell Buttrick, Dir. Personnel D.O.H.

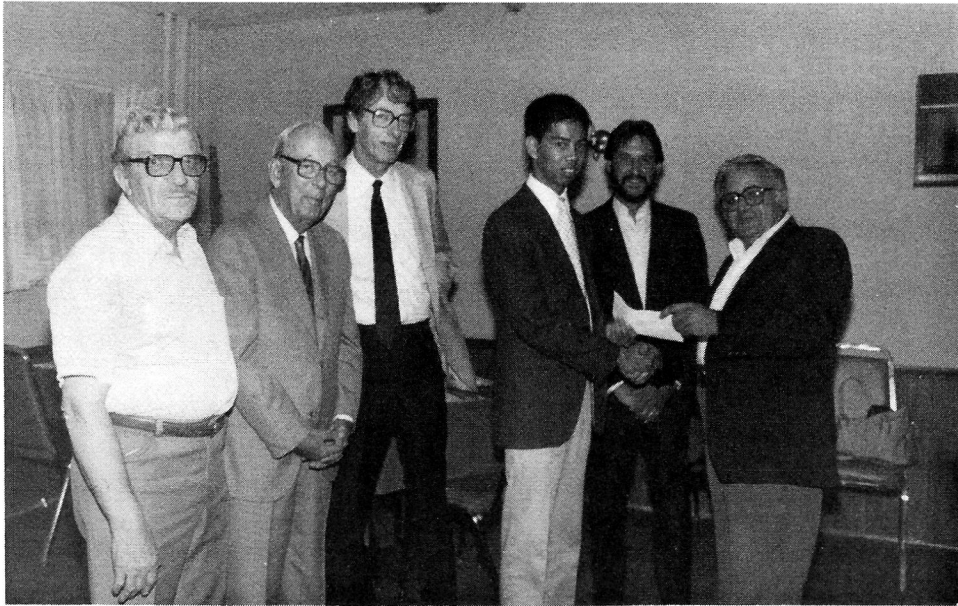


CHARLESTON WEST VIRGINIA SECTION

Walt Imler presenting plaque to Commissioner Ritchie.

Mike Tiani, National 1st Vice President.

Commissioner Ritchie socializing.



NORTH CENTRAL W.V.

continued from page one

Control; and William "Red" Hamric, Chief Field Inspector for the Corp of Engineers. The dam is a joint venture of the J.F. Allen Company and the Wiley Jackson Company, and dinner at the Caravan Restaurant in Weston for all in attendance was supplied by the J.F. Allen Company. Chapter members in this Company include Jimmy Allen and sons, John and David.

It was with a great feeling of pride by the members to receive the announcement by West Virginia Governor Arch A. Moore that David Allen has been appointed Assistant Commissioner of the Department of Highways.

The "Man of the Year" Award for '85 has been voted by the members to John C. Giese, of John C. Giese Engineers, Inc., a Clarksburg based consulting firm specializing in highways, bridges and airports. John has designed more than 200 bridges over a 30-year span and has left a lasting imprint in every corner of West Virginia. Major road projects have included sections of Interstate 79, the Appalachian System, Corridor Q, and Interstate 81 in the eastern panhandle which had the first full cloverleaf interchange in the state. This interchange is often pictured in brochures as evidence of West Virginia's modern system of roads. At the present time, Giese is involved in the design work on over 18 bridges in various parts of the state. His reputation as a master bridge designer was honored at a special dinner presentation held October 18 at the Sheraton Inn in Clarksburg with over 100 local dignitaries and Society members entering into the serious bestowment of the award and the hilarious "roast" produced by his many associates through the years on his projects. The evening was under the direction of Buddy Lopez, Chairman and Bill Pulice.

The September meeting featured a program on the Indian artifacts found while constructing the Dorsey Knob road project.

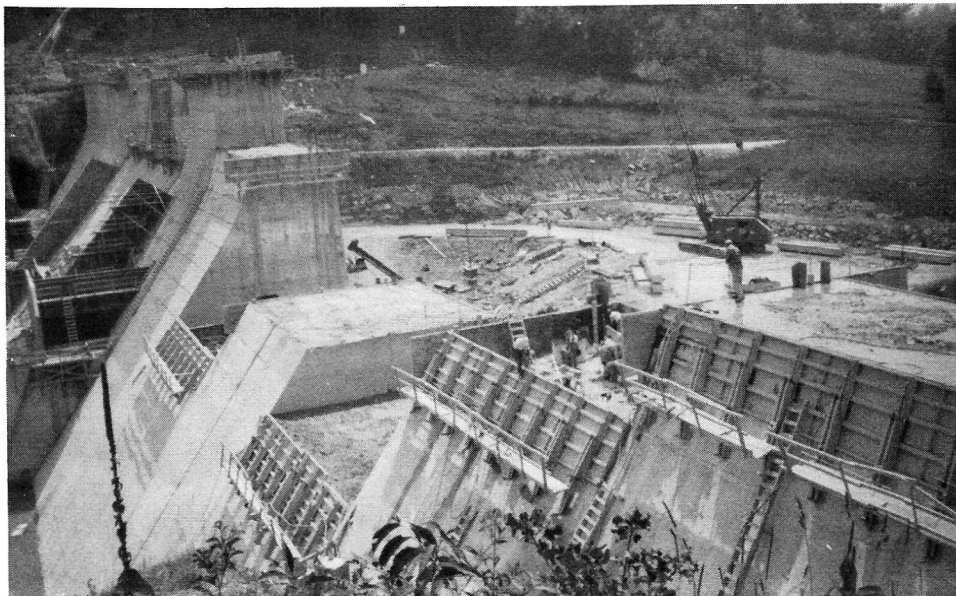
The upcoming programs and projects promise to keep this Chapter busy, entertained and involved. †

NORTH CENTRAL WEST VIRGINIA

Pete Clayton, John Giese, Renato Javio (scholarship recipient), Vincent Lopez and Bill Pulice, president awarding \$500 scholarship in May.

The construction at the Stonewall Jackson Dam Project being done by member company, J. F. Allen Co. This is the site of the June meeting of the Chapter.

Stonewall Jackson Dam Project.



East Penn

Bart Snyder, Public Relations

After a hiatus of a few years, the annual Ladies Night of the Section was held on September 21, 1985, at the Green Valley Country Club, in Sinking Spring Borough, Berks County.

This special night was the kickoff of our 1985-86 season. Forty members, with their wives and guests, enjoyed a gala evening of fine food and drink, music, and dancing. Special thanks are extended to the following three firms who sponsored the cocktail hour preceding the dinner, namely: McTish, Kunkel, and Associates; Spotts, Stevens, and McCoy; and E. J. Breneman, Inc.

The first Fall meeting of the Section was held on October 8, 1985 at Walp's Restaurant in Allentown.

Twenty six members and guests were in attendance. Mr. Matthew F. Mazza, P.E., District Engineer for District 5, in Allentown, gave a detailed report on the upcoming construction projects in the six counties under his jurisdiction. Of primary interest to all was the current construction and design of Interstate Route 78, between Fogelsville and Easton. Mr. Mazza stated that by the end of this year, six sections of this project would be under construction. Final design is proceeding on all the remaining sections of the route.

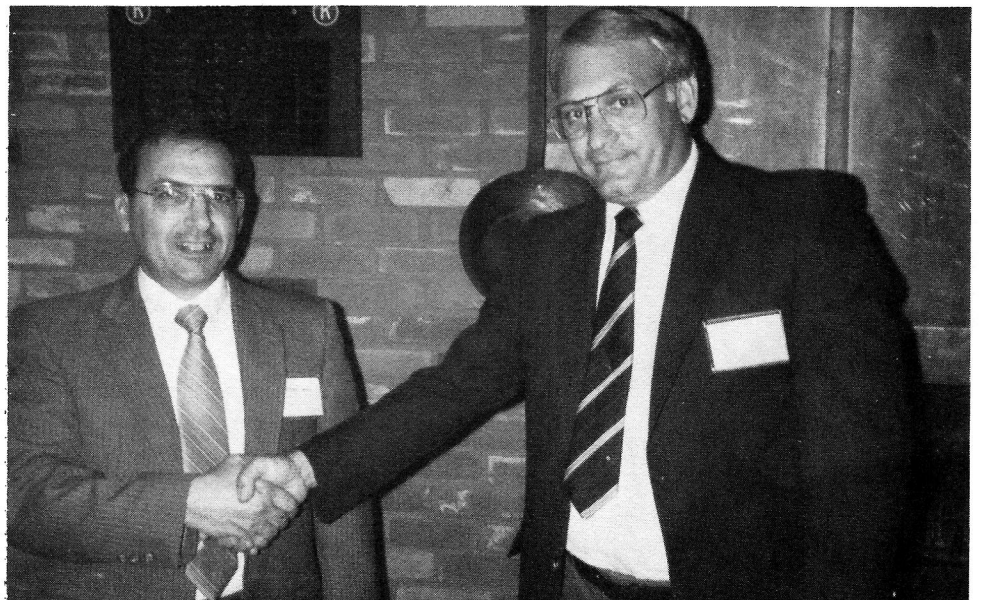
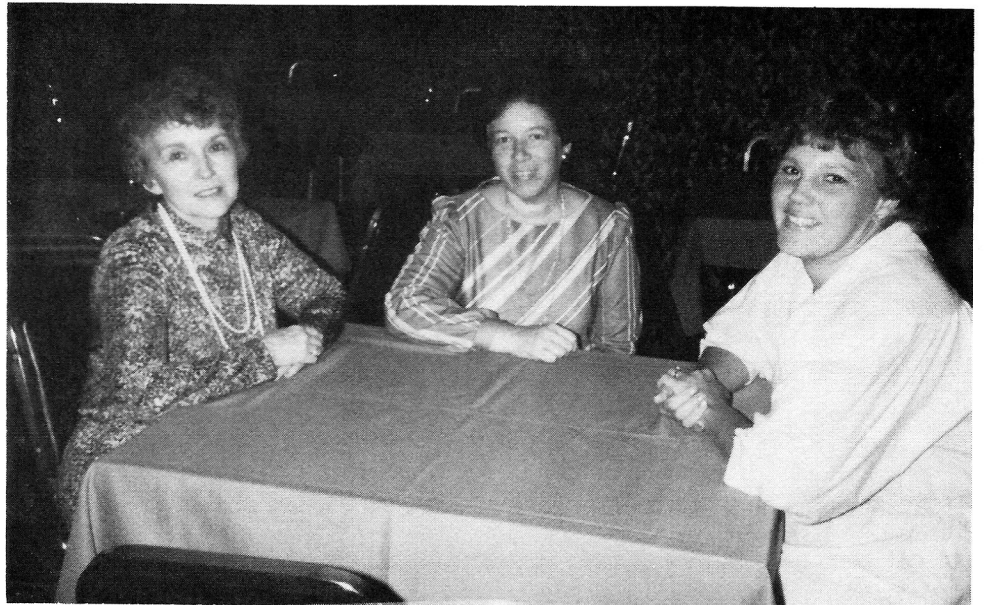
A new innovation will be the installation of the CAT system in the District Office in November. Personnel are now being trained for the ultimate operation of the system, which is capable of producing plans three times faster than conventional methods.

EAST PENN SECTION

Part of the group in attendance at Ladies Night at the Green Valley Country Club on September 21, 1985.

Three of the ladies attending Ladies Night at the Green Valley Country Club. L. to r. Leah Donovan, Marge Jones and Patty Jones.

Mr. Matthew F. Mazza, P.E., District Engineer for District 5, in Allentown, receiving a "thank you" from Mr. Michael P. Quigney, right, for his program presentation at the regular meeting of the East Penn Section, October 8, 1985.





Delaware Valley

The Delaware Valley Section held its first dinner meeting of the year on September 18, 1985. Members and guests were welcomed by Section President Pasquale "Pat" Dougherty. Pat reported on the success of the 1985 National Convention, and gave an enthusiastic outlook for the year ahead. This includes plans to involve local civil engineering students at a future Section meeting.

The subject of the evening's program was the Evergreen Wall System. This system has been used extensively in some European countries for retaining wall and noise abatement applications. The Evergreen Wall provides areas for vegetation that covers the wall, creating an aesthetically pleasing effect and eliminating the opportunity for graffiti. The walls maintain structural integrity for retaining purposes, or can be constructed as a free-standing noise abatement facility. The presentation was made by Dietrich Sobottka, of Carlson Concrete Systems, and Hank B. Carlson, President of Evergreen Systems, Inc.

The Evergreen System is of particular interest to Delaware Valley Section members, as it will be utilized on the upcoming I-476 project in Delaware County. This will be one of the first installations in the U.S., and as such, will become a Showcase for the highway industry.

Paul McConnell reported on progress in establishing a new Section in southern New Jersey. The Delaware Valley Section will participate in a dinner meeting in New Jersey on October 23 to help initiate activities and new membership in the new Section.

Delaware Valley Section members and guests were welcomed to the monthly dinner meeting on October 9th by Section President Pasquale "Pat" Dougherty. The dinner meeting was held at the King of Prussia Holiday Inn. Pat presented the group with details of the planned College Night, which will be incorporated with the Section's March dinner meeting. This will involve civil engineering and construction students from Philadelphia area colleges.

Paul McConnell reported on establishment of the New Jersey Section. Delaware Valley Section members were urged to attend a kick-off meeting for the new section on October 23rd.



Central Ohio

Roland A. Nesslinger, Public Relations

Two successful meetings—one technical and one social—kicked off the beginning of the Central Ohio Section's second year. On July 23, a noon luncheon at the Jai Lai Restaurant in Columbus was attended by 26 members and guests who saw the 3 M Company movie "Signs of Life." This excellent film is a story of the importance of traffic signs in the every day operation of motor vehicles. Among the many points covered were the effectiveness of reflectorized signs especially at increased speeds, the use of color to discern particular routes, and the shape of signs to tray standard messages. A lively discussion followed the film with Franklin County Engineer John Circle taking the lead by explaining how funding can influence signing effectiveness. Low population counties often have difficulty financing necessary signing. It was suggested that perhaps a law is needed to require a minimum level and uniformity in highway signing.

The Section's social event was held on September 24 at the Oakhurst Country Club where members were invited to bring guests for lunch and 18 holes of golf. The shotgun start, 3-person scramble and ideal autumn weather made for a fine afternoon for all who attended. A number of guests expressed interest in ASHE, and several new members are expected to sign up as a result of this outing.

The 3 Ohio ASHE Sections—Central Ohio, Cuyahoga Valley and Erie will jointly underwrite a cash bar at the Annual Ohio Transportation Engineering Conference to be held December 3 and 4, 1985 at the Ohio State University. This has proven to be a highly successful mixer for people in the highway industry and all ASHE members are encouraged to attend.

†

CENTRAL OHIO

At the July 23, 1985 luncheon, member David Weir participates in lively discussion on highway signing.

Franklin County Engineer, John Circle, explaining how funding can influence signing effectiveness.

John Adams, Central Ohio Section Director.





DELAWARE VALLEY

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David Nale, of Aerial Data Reduction Associates, presented an interesting program on photogrammetry and mapping. The use of sophisticated electronic and computer equipment has revolutionized this industry.

Also on the program was Dr. James Collins, of GEO/HYDRO, Inc. Dr. Collins gave a presentation on the use of satellites in establishing ground control points. This method involves use of the federal government's NAVSTAR satellites.

Combination of the two systems provides the highway industry with a wide range of new options in the areas of photogrammetry, surveying and mapping.

The next regular monthly dinner meeting will be November 13th.



Technical Briefs

structural fill, thermofill, road base, floor base, trench bedding, structural fill and water displacement.

Mix Proportioning

The mix designer for a CLSM mix must consider two areas of technical study; concrete and geotech. The finished product is neither a concrete or a soil, but something resembling a good bearing soil and a very weak concrete. The specific area of study for the mixing of CLSM is "particle sizing". For example, a controlled density fill (CDF) must be flowable, from the truck to the trench, and also removable after consolidation. It must also develop some specified compressive strength and density. This control is accomplished through material gradation information and proper mixing.

Specifications

Many CLSM specifications are now available. States, counties and cities are now specifying CLSM mixes by a whole host of names. Concern with any specification is proper use. Will the material perform as specified? Is it removable? What is its final density and other physi-

continued on next page



CENTRAL OHIO

Joe Kindler, Central Ohio Section 1st Vice President speaking at July 23rd luncheon.

Getting ready for an afternoon of golf.

Joe Kindler and Bill Roby.

cal properties? ACI C229 in its state of the art publication will be establishing guide lines to answer these questions.

Costs

Naturally, a CLSM material should never be used unless it is more cost feasible. This naturally requires the contractor estimator or designing engineer to calculate costs for CLSM and the alternative construction method.

For example, if a street trench is to be backfilled with granular material, then the construction costs should include material, testing, equipment, time etc. The major CLSM cost would be the material delivered to the trench. Placement would be directly from the truck chute.

SAMPLE SPECIFICATION

Item Special — Low Strength Mortar Backfill Material

Description

This work shall consist of the placement of a flowable low strength mortar for backfilling conduits or at other locations as shown on the plans or as specified. The work shall be in accordance with ODOT items 603 and 499 unless otherwise specified herein.

Materials

Materials shall be:

- A. Cement.....701.01 or 701.04
- B. Flyash shall come from a source approved by the Engineer
- C. Fine Aggregate shall be natural sand consisting of mineral aggregate particles. The gradation of the sand shall be as follows:

<u>Sieve Size</u>	<u>Percent Passing</u>
3/4"	100
200	0 - 10

It is intended that the sand be fine enough to stay in suspension in the mixture to the extent required for proper flow. The Engineer reserves the right to reject the sand if a flowable mixture cannot be produced.

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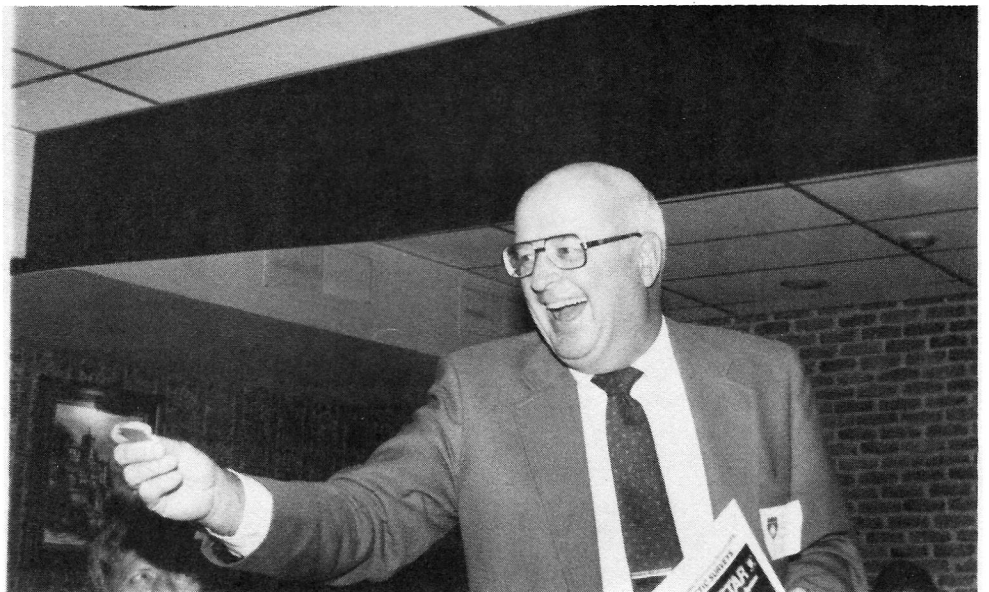
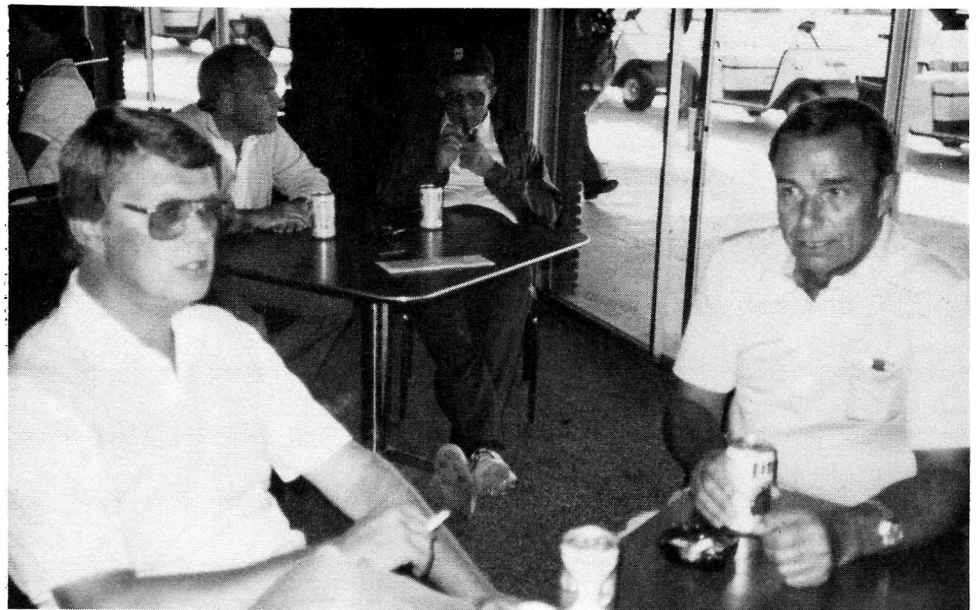
CENTRAL OHIO

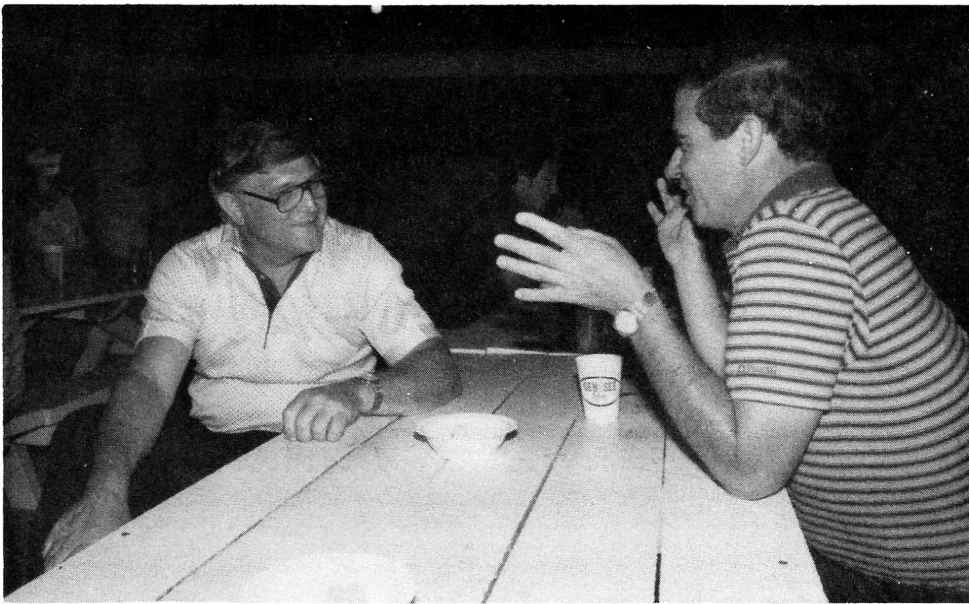
L. to r. Joe Kindler, Bill Roby, J. Sephan Hubbell and Norville Steward at the Oakhurst Country Club.

Elmer Stitt and Ron Zook "waiting at the starting gate".

HARRISBURG SECTION

Robert Kalbach draws the grand prize winner in post dinner festivities at the October 7th Harrisburg Section ASHE Dinner.





Franklin

L. K. Murphy, Public Relations

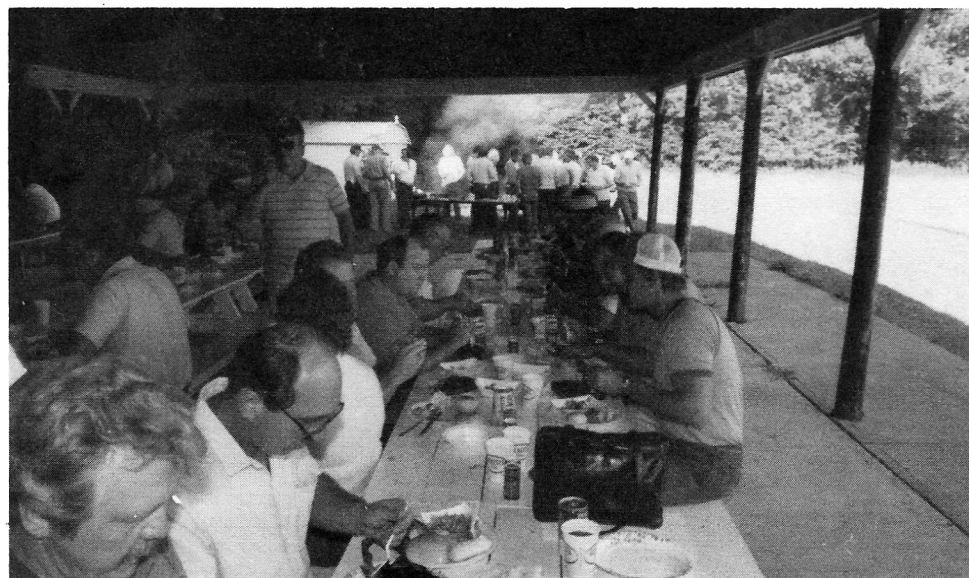
As you can see from the photos, Franklin ASHE has had a busy summer. One that is going to close with our next meeting at the Country Club in Titusville when Herb Hasbrouck presents his annual "trip" and ASHE members can all enjoy seeing slides of beautiful country and beautiful scenes of all types. I understand we are going to "hit" the beaches and volcanos of Hawaii this year and everyone is looking forward to it. The majority of our summer meetings have been picnics and golf outings providing a good opportunity for the new Franklin ASHE Board to get their feet on the ground and plan an informative winter.

The changeover of ASHE officers has accomplished some unusual things this year. The officers who have stepped down "loaded" the new board with a lot of good suggestions and ideas and the new board put together some of their own -- it looks as though we're going to be emphasizing some "out of the ordinary" and quite complete SCANNER coverage. Watch Franklin for some great ideas.

We've also put together a new Technical Committee. The remainder of my column is going to be their report on a new system that has been put together for PennDOT, District 1-0. District Engineer Lewis Gurley, P.E. has put Joe Chriest in charge and he wrote the following article for us.

What time is it going to rain? How's the weather tomorrow? Can I make that pour like planned? These are the kinds of questions floating around the District Office since the Kavouras Color Weather Radar was installed.

continued on next page



FRANKLIN SECTION

ASHE President Herzog explains to Sen. Wilt - "Roy, this is the way it is!"

It's tough to blame the cook for a bad meal if you have to cook your own!

Ready for "chow down."

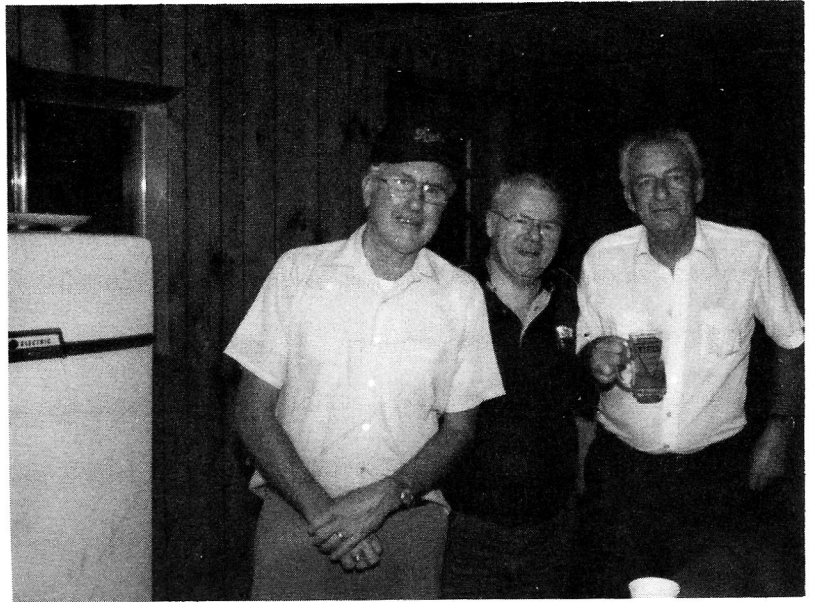
The unit is a radar remoting device which accesses the National Weather Service radar installations. It is the same system used by local TV stations for their weather reports.

By dialing the telephone and flipping a switch, the District has instant access to radar sites in Erie, Cleveland and Akron. The radar scans ranges of 60, 120, 180 and 240 nautical miles, displaying the precipitation patterns, locations and intensities of the weather on a color monitor.

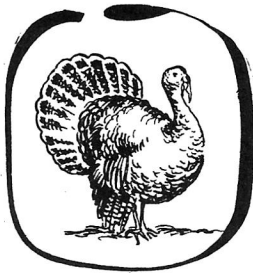
The District plans on using this system to enhance its winter traffic service operations. A central dispatcher will be on duty around the clock during the winter months monitoring the weather. If the radar shows that precipitation is imminent, then the dispatcher will call the individual counties to alert them and call their forces out.

Utilizing the system should give the facts needed to make a decision on whether to call out people to fight the storm, or not hold people over if the storm is done.

It looks as though the new radar system is going to be a plus for Engineering District 1-0 winter and summer. †



HAPPY THANKSGIVING TO ALL

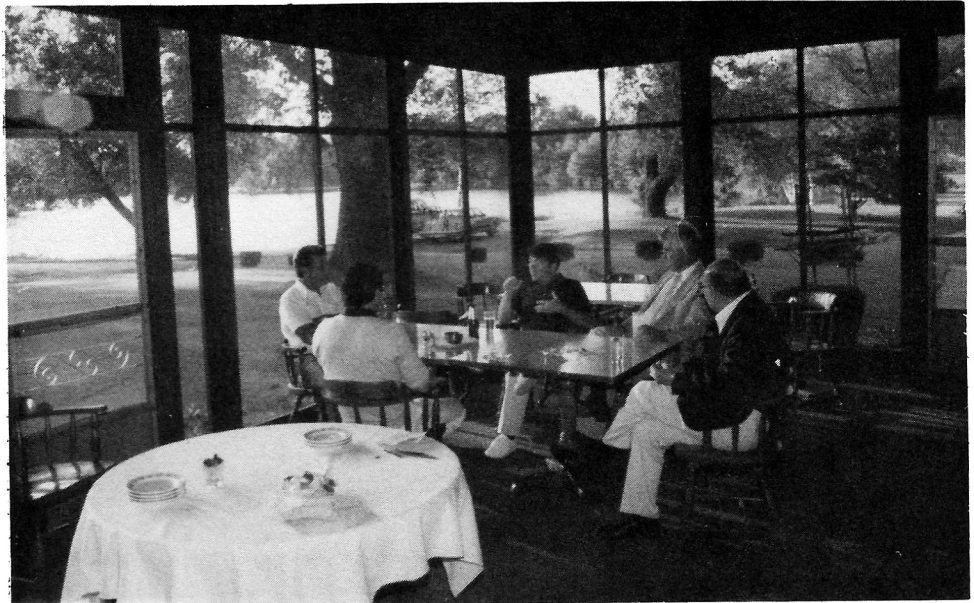


FRANKLIN SECTION

The salad and potato crew taking a short break - l. to r. Russ Hart, Bob Gerwick, Don Hart.

A round table discussion at a square table - Grove City Country Club.

"And a good time was had by all." Another scene from the Grove City Country Club.





Altoona

Larry Billoto, Gary L. Wisor, P.E.,

The May meeting was held at the Creekside Inn near Leamersville. This meeting concluded the Section's business for the 1984-85 year and featured the presentation of our first Special Service Award and the installation of officers for the 1985-86 year.

Harold C. Jenkins, General Manager of the Cambria County Transit Authority, was honored with our Special Service Award for his outstanding service to the transportation community. In more than 20 years of public service in various administrative capacities, his civic contributions are many. Most recently, however, Harold assembled two separate but equally unique funding packages that enabled the Johnstown Incline Plane renovations project and the Broad Street Widening and Signalization projects to be performed. In 1983, he was the recipient of the Urban Mass Transportation Administration's "Administrator's Award" for outstanding public transit administration.

While Harold is certainly deserving of our special Service Award and the implied recognition of his contributions to our industry, he is also deserving of our sincere thanks for the fruits of his dedication and labor.

New Enterprise Stone and Lime Company was the sponsor of the meeting.

Once again, good fellowship was had by all who attended the annual picnic. Despite the rain, we had a record turnout. Thanks again to L. Robert Kimball and Associates for providing their beautiful facilities.

The September meeting was held at Windber Country Club. Richard McCoy, a representative of the U.S. Fish and Wildlife Service spoke to the membership about "Wetlands."

We thank Merv Whitaker for his sponsorship of the meeting.

ALTOONA SECTION

Some of the many new members welcomed during the 1984-85 year.

Incoming President Bob Hilldale (right) is installed by Past President Don Snively.

Altoona Section 1985-86 officers and directors: seated l. to r. Walt Bagley, Karen Shetty and Roy Pfeffer. Standing l. to r. Bill Wilson, Don Snively, Forrest Cameron, Bob Hilldale, Bob Catherman, Bill Gohn, and Gary Wisor. Absent were Tim Tremel, Roy Davis, Bill Werts, Bob Kunselman and Dwayne Boor.



Pittsburgh

Thomas E. O'Brien, P.E., Public Relations

On September 11, 1985, a joint meeting of over 100 members of the Pittsburgh sections of ASHE and ABCD was held at the Terrace Room in Parkway Center. John (Fred) Graham, P.E., Director of Engineering and Construction for Allegheny County was the featured speaker. The theme of Mr. Graham's presentation was "Innovation in Engineering."

Mr. Graham's presentation stressed the importance of engineering innovation in the design of highways and bridges by the utilization of new products and design methods, especially by consulting engineering firms. Unfortunately, some government methods of obtaining engineering services by competitive bidding, plus requiring high amounts of professional liability insurance, have made it difficult for consultants to be innovative. Consultants are "afraid to fail" and thus they are afraid to use innovation, change standards, or utilize experimental products.

At present, if a local government wants to use an innovative product, it must pay for it and document its results first prior to any reimbursement by the federal government. Mr. Graham suggests that federal funding should be increased for innovative systems, and contractors and engineers should not be held responsible for failures of innovative systems. Any failures that do occur should be well publicized so that mistakes are not repeated.

With regard to the issue of obtaining engineering services by the method of low bid, Mr. Graham stated that this did not make sense since designs not including value engineering can end up causing higher construction cost. He indicated that government seems to assume that value engineering is part of low bid con-

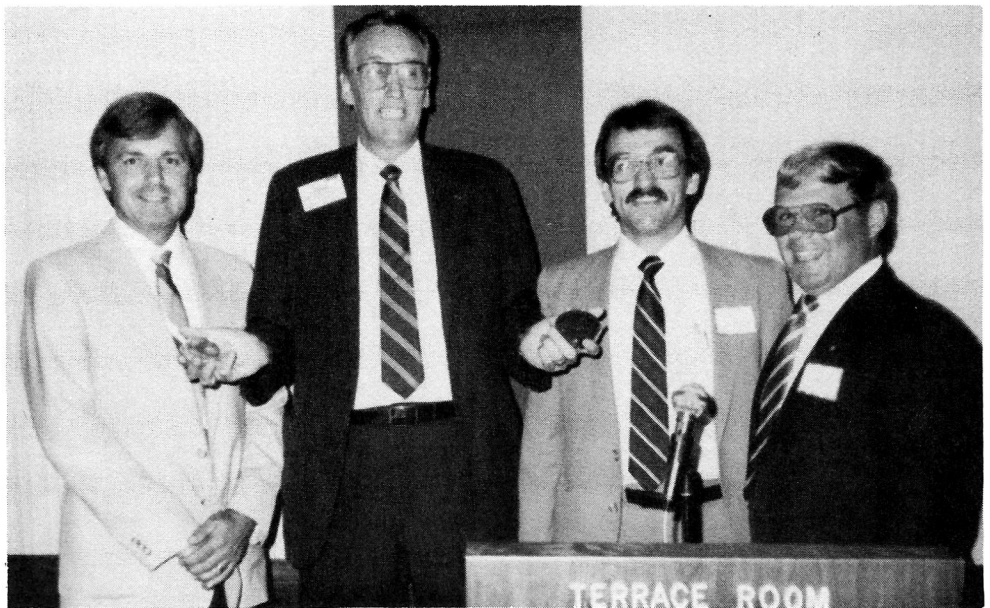
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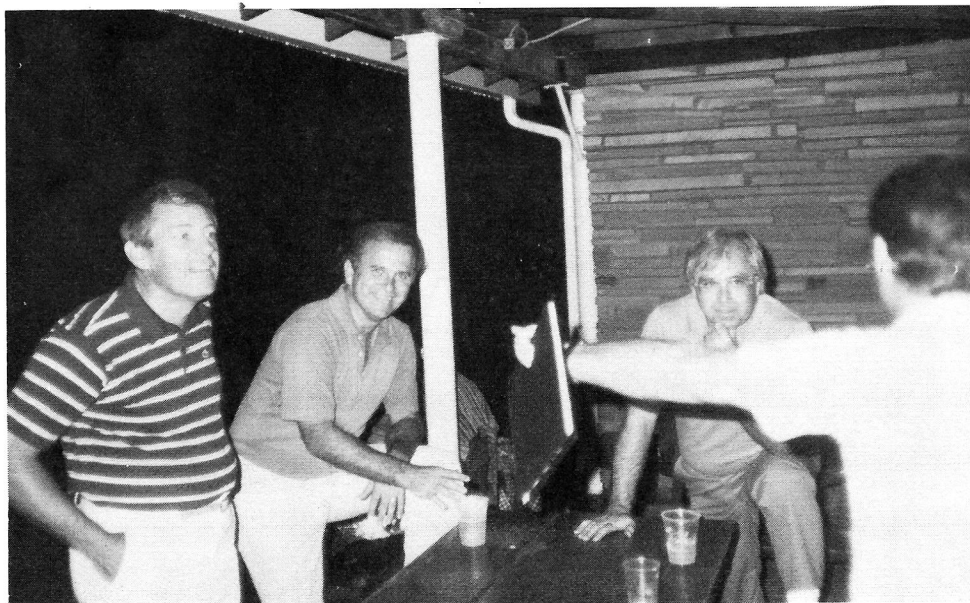
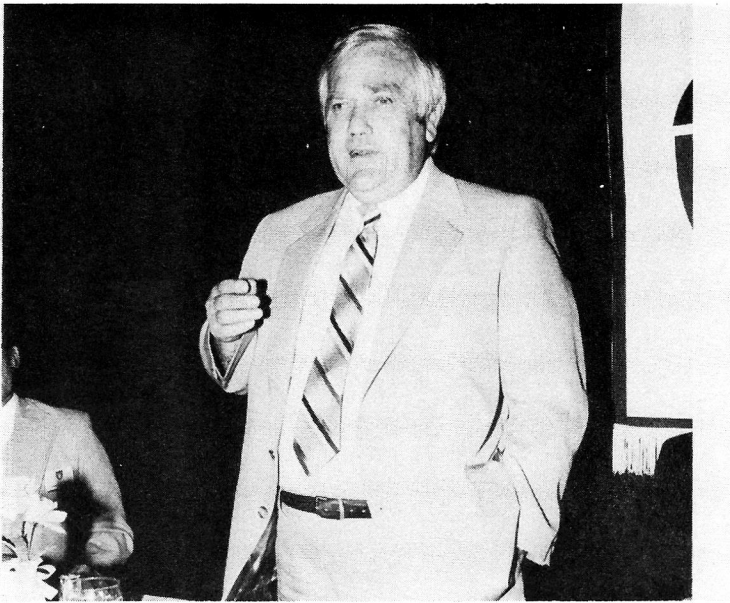
PITTSBURGH SECTION

Presentation of ASHE and ABCD paperweights to Fred Graham. From left to right, John Spires, Fred Graham, Karl Kejak and Lisle Williams.

Meeting dais. From left to right, Fred Graham (speaker), John Spires (ASHE), Lisle Williams (ASHE), Karl Kejak (ABCD), George Tomich (ABCD).

From left to right, ASHE 2nd Vice President Lisle Williams, Immediate Past President John DeRoss and Program Chairman John Spires.





tracts, but it is not. He believes that value engineering should be included into every engineering contract and a separate cost budgeted.

Mr. Graham also mentioned that innovative funding by local government should also be part of the process. In Allegheny County, county-run power plants along the Ohio River create revenue to be utilized in rehabilitating the county's infrastructure.

In closing, Mr. Graham emphasized the need for both ASHE and ABCD to push for more state and federal funding for bridge and highway projects. †

Technical Briefs

Mortar Mix Proportioning

The initial trial mixture shall be:

Quantity of Dry Materials per Cubic Yard

Cement	100 lbs.
Fly Ash	250 lbs.
Sand (SSD)*	2700 lbs.
Water	500 lbs.

*saturated-surface-dry

These quantities of materials are expected to yield approximately 1 cubic yard of mortar of the proper consistency. Adjustments of the proportions may be made providing the total absolute volume of the materials is maintained.

Trial Batch

To expediate consolidation of the mortar, it will be necessary for bleed water to appear on the surface immediately after the mortar is struck off. A delay in bleeding indicates there are too many fines in the mixture, so the fly ash quantity shall be reduced in increments of 50 lbs. until mixture is bleeding freely. Approximately 60 lbs. of sand shall be added to replace each 50 lbs. of fly ash to maintain the original yield.

continued on page eighteen

ALTOONA SECTION

Special Service Award recipient Harold C. Jenkins.

PITTSBURGH SECTION

Cocktail hour socializing. From left to right Rich Ball, Rudy Melani, Don Gennuso, John Landy and Tom Stockhausen.

SOUTHWESTERN PA. SECTION

Paul Boord (left) Tom Brado (center) and Jack McCune (right) discussing either golf or highways?

South Western Penn

The section held its annual "steakout" at Isaac Walton Park bordering Meadow Run in the Laurel Mountains of Fayette County. Despite overcast skies with intermittent rain, the August 16, 1985 affair was attended by 55 persons which included guests. Section President Jim Griffin and his well organized team of chefs (Rich Glover, Bob Kara, Bill Graham and Don Shirk) prepared an outstanding meal including steak, corn-on-the-cob, tossed salad, baked beans and baked potatoes. Jim's specially prepared watermelon made us all temporarily forget about waistlines.

A brief business meeting was highlighted by the presentation of membership certificates and pins to new members John E. Claypool (District Engineer, 12-0 PennDOT) and D. Paul Boord (Chief of Surveys, 12-0 PennDOT). George Tanncr, Section Program chairman, also reviewed the list of speakers he has secured for the monthly meetings through April of 1986.

A golf outing was held prior to the cookout at the scenic Nemaacolin Woodlands course. Nick Hutnick was low medalist for the day firing a 75 over the difficult links. The winners of kickers event included George Crouse, Terry "sandbag" Conner, Bud Moyer, Tom Nickelson and Tony Conte. (see photographs)

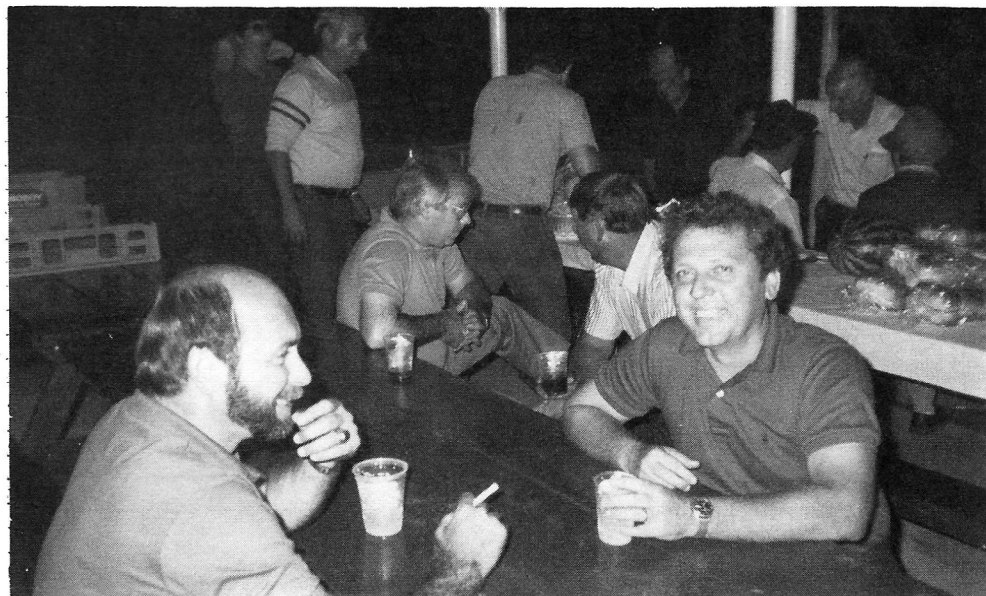
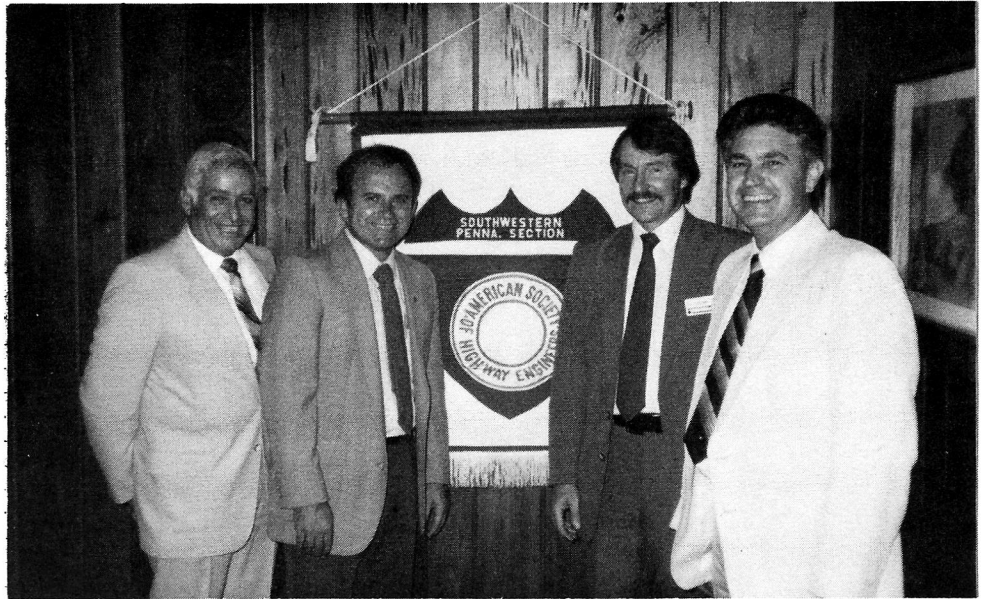
On September 25, 1985, the Section conducted its regular monthly meeting at Howard Johnson's Restaurant in Hopwood Pa. A presentation was made by Roy Taylor, P.E., Director of the Center for Program Development and Management, PennDOT. The title of Roy's excellent presentation was "A New Focus for Pennsylvania Highways — A Federal and State Perspective". Over 40 persons attended the meeting. The happy hour was sponsored by member employees of District 12-0 PennDOT and was followed by a buffet dinner.

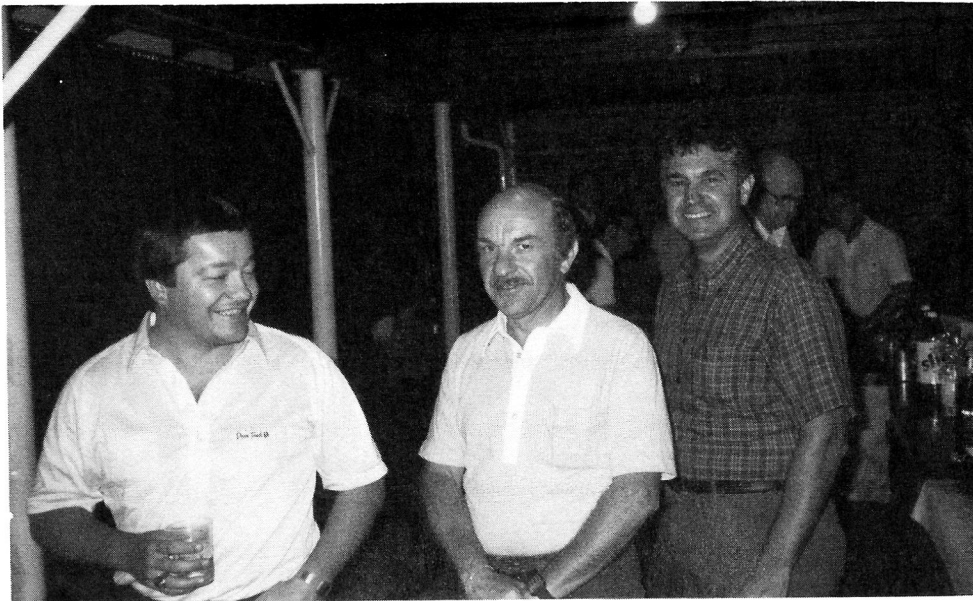
SOUTHWESTERN PA SECTION

Section officers Jim Griffin (left) Tom Brado (left center) and Domenic Piccolomini (right) with main speaker Roy Taylor (right center).

Jim Griffin, Section President, (right) congratulating new member Paul Boord.

Dennis Siska (left) Jack Gilisek (right) and others during attitude adjustment hour.





Technical Briefs

Fluidity of the mortar mixture shall be measured by the Corps of Engineers' Flow Cone Method according to CRD-C661. Prior to filling the flow cone with mortar, the mixture shall be passed through a $\frac{1}{4}$ inch screen. Time of efflux shall be approximately 12 seconds.

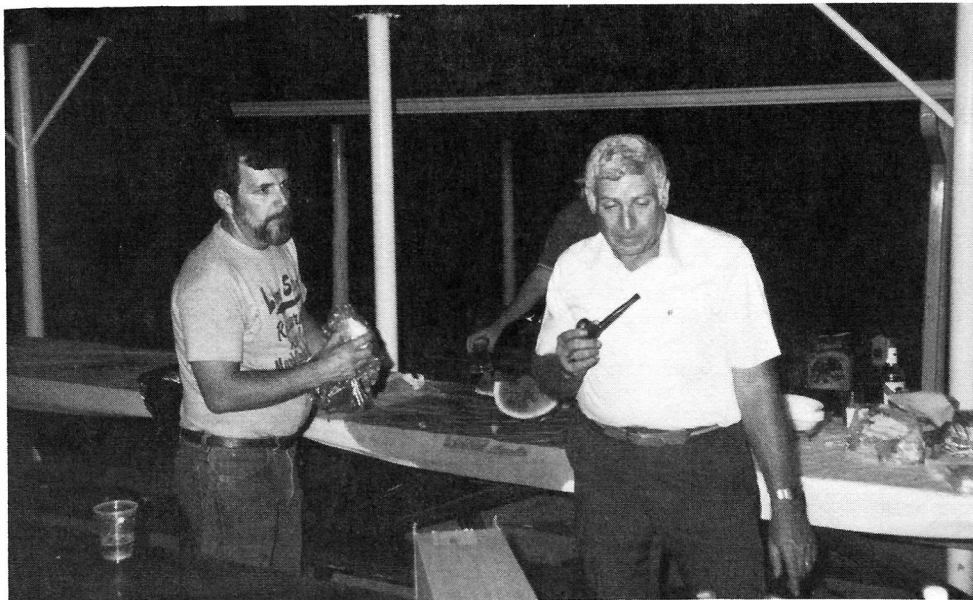
Prior to the first placement, the Contractor shall make one or more trial batches of mortar of the size of be hauled to job site and shall cast one or more test samples equivalent to the approximate dimensions of the trench to be backfilled (either in a form or trench). Amount of bleeding, settlement rate and time required to support pavement replacement shall be determined from these full-size tests, the contractor shall furnish the required materials and samples without charge to the State in accordance with 106.03. The ODOT Testing Laboratory shall be notified 7 days in advance of the test batch preparation to observe the placement operations and to conduct all required tests.

Mixing Equipment

Sufficient mixing capacity of mixers shall be provided to permit the mortar to be placed without interruption.

Placing Mortar

Flowable mortar shall be discharged from the mixer by any reasonable means into the space to be filled. The fill material shall be brought up uniformly to the fill line shown on the plans or as directed by the Engineer.



TRENCH BACKFILL

Subdivision streets and city roads are designed to provide a long service life with a minimum of maintenance. Experience indicates that these pavements have generally been providing satisfactory service. However, there are times when the service is not entirely satisfactory. Much of

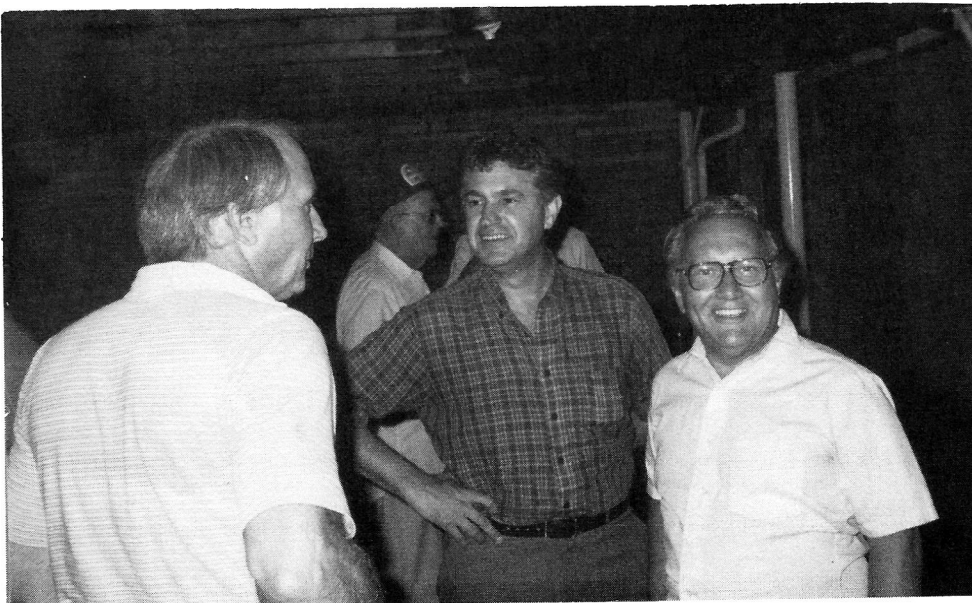
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SOUTHWESTERN PA SECTION

National Secretary Terry Conner flanked by bodyguards Ed Wojtaseski (left) and Domenic Piccolomini, Section Secretary.

Concerned chef Rich Glover left and Section President Jim Griffin - where's the beef?

New member John Claypool (right) Domenic Piccolomini (center) and a guest.



New Members

CUYAHOGA VALLEY SECTION

Paul D. Darden, Akron OH
Member-Contr.
Mary Jo Durbin, Dover, OH
Member-ODOT

DELAWARE VALLEY SECTION

Anthony J. Guarino, P.E., Norristown, PA
Senior Contr.
Philip W. Wursta, Warminster, PA
Assoc. DOT
Louise M. Lamb, Malvern, PA
Assoc. Cosult.
Marianne P. Riola, Allentown, PA
Assoc. Conslt.

FRANKLIN SECTION

Roy W. Wilt, Greenville, PA
Senior - Senator-Comm. of PA

HARRISBURG SECTION

Edward H. Kazlauskas, P.E., Harrisburg, PA
Senior - DOT
Joey E. Herwig, East Berlin, PA
Assoc.-Consult.
Brad D. Brosius, P.E., Dover, PA
Senior - Consult.
James F. Lobach Jr., P.E.
Received Life Membership

PITTSBURGH SECTION

John C. Biddle, New Castle, PA
Senior-Contr.
Michael F. Rinker, P.E., Butler, PA
Senior-Contr.

LAKE ERIE SECTION

Kenneth E. Miller, North Olmsted, OH
Senior-utility
Richard S. Ball, Parma, OH
Senior-utility
George R. Hopkins, Seven Hills, OH
Assoc. utility
Robert E. Phillips, P.E., Chardon, OH
Senior - Munic.
George A. Plain, P.E., North Olmsted, OH
Senior-Tpk.
Dale A. Schiavoni, P.E., Willoughby, OH
Senior-ODOT
Marcus L. Cytrone, Mayfield Hts., OH
Member-Contr.
John F. Shiltz, N. Ridgeville, OH
Assoc. Sales
Paul S. Wolf, P.E., University Hts., OH
Senior-Munic.

N. CENTRAL W.V. SECTION

Richard B. Post, Clarksburg, WV
Assoc.-Dept. Hgwy.
Cindy R. Spence, Clarksburg, WV
Assoc.-Dept. Hgwy.
Lawrence J. McMullen, Fairmont, WV
Senior-Dept. Hgwy.

NORTH EAST PENN SECTION

Gretchen Shoemaker Dawson, Tunknankock, PA — Assoc. Member

SOUTHWESTERN PA SECTION

Donald P. Booyd, P.E., Carmichaels, PA
Senior-DOT
John E. Claypool, P.E., Uniontown, PA
Senior-DOT
Michael J. DeFino, R.S., Uniontown, PA
Senior-Surveyor

WESTERN RESERVE SECTION

William H. Dunlap, Youngstown, OH
Senior-Mat'l
Melvin D. Majors, Youngstown, OH
Member-Consult.
Zane H. Johns, North Lima, OH
Member-Contr.
David S. Netwick, Salem, OH
Assoc.-Mat'l
Joseph F. Lofaro, Brookfield, OH
Member-Contr.

WILLIAMSPORT SECTION

Robert D. Dalton, Northumberland, PA
(reinstated) Assoc-Prod.

Technical Briefs

this less than satisfactory service is unnecessary and the result of pavement settlement over utility and pipe trenches. Low volume roads, whether of rigid or flexible design, all too often experience this trench backfill settlement problem. The backfill material in the trench consolidates and settles after the pavement has been constructed and opened to traffic. Subsequently, the loss of support causes the pavement to also settle. These areas of settlement create uncomfortable riding conditions and ultimate deterioration. In addition, they also create maintenance problems for street departments and detract from the appearance of the street.

Granular materials that are easily compacted and not likely to consolidate are usually specified for backfilling trenches. Also, specific procedures for placing and compacting thin layers of backfill materi-

al are usually, outlined to avoid subsidence and settlement. These procedures attest to the awareness that trench backfill can be a problem to the paving industry. Ideally, material used in backfilling trenches should exhibit the same physical properties as the material adjacent to the trench. Also, with granular material it should be compacted to the same density as that of the adjacent material to avoid differential settlement. After backfilling, the trench should not be different than the adjacent area in load carrying capability to assure uniform support for the pavement. In spite of the recognition given the importance of properly backfilled trenches and the special provisions needed to preclude having the problem occur, subsidence of backfill and pavement settlement over trenches is still a recurring problem to the industry.

Greater awareness and emphasis is necessary to end this problem. Trench backfill must be compacted properly, closely inspected and tested to assure compliance with special provisions. If inspection and testing are not feasible, then materials and procedures, not dependent upon inspection and testing for success, should be specified to prevent subsidence and settlement at a later time. Such materials are available to provide assurance to owners and designer that settlement will not occur.

Non-consolidating or controlled density materials can be used for backfilling trenches that will not inherently change volume after being placed. Concrete would qualify as such a material but would be difficult to remove if it had to be at some future date. Proprietary products (K-Krete for example) and similar materials better fit this category and are more suitable for the purpose than concrete. They are not as strong and, therefore, can be more readily removed if necessary. Also, because they contain smaller quantities of premium materials and can utilize marginal quality fine aggregate and fly ash, they can be more economical. Such materials have many advantages justifying their use. Some are:

1. They do not exhibit subsidence and settlement after they are in service.
2. They do not require compactive effort.
3. They can be removed if removal is necessary to service the utility encased.
4. They require minimum inspection or testing to assure performance.
5. They permit work to progress in concert with the construction schedule.

John C. Dixon, P.E.
Vice President, Engineering
Ohio Ready Mixed Concrete Association

OFFICERS 1985-1986

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G. Michael Tiani 1st Vice President
Ronald E. Springman, P.E.
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Terence D. Conner, P.E. Secretary
Robert E. Yeager, R.S. Treasurer
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Samuel H. Callisto, P.E.
2 years Edward S. Nasuti, P.E.
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THE ASHE SCANNER

Robert M. Sherr, Editor
208 Banner St.
EMMAUS, PA. 18049



Secretary's Corner

Membership Reminders:

1. New members - \$20 which consists of \$10 initiation fee and \$10 1985-86 national assessment.
2. No assessment is required for members admitted after March 1 of the current fiscal year.
3. Sections wishing to drop members for non-payment of dues, should do so prior to Dec. 1 of the fiscal year. Even the member is dropped by section, the section will be responsible for paying the current years' assessment if the drop occurs after Dec. 1.

On the other hand, if a section pays the National Assessment early in the Fiscal Year they may drop members until Dec. 1., and receive a credit (refund) from National.

Nominations - officers and man of the year nominations should be sent to Chuck Luff, Chairman, no later than Jan. 15, 1986.

Sections should check when their director's term expires so that they may nominate another if necessary.

Pittsburgh Section - new secretary Ms. Tammy Johnson, 137 Greenvally Ct., Pittsburgh, PA 15220. †

Be Winter Wise

"The North wind doth blow, and we shall have snow, and what will poor Robin do then?"

This phrase from an old Mother Goose Nursery Rhyme is not too far from what the National Weather

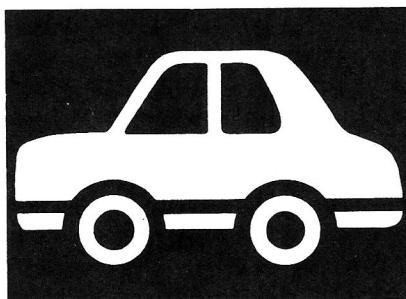
Service is predicting for most of the country this winter season.

But, while the weather outside is frightful, your car travels can be delightful, if you take a few preventive measures and put together a winter driving kit and store it in the trunk of your car.

Keep extra clothes and blankets on hand. Being stranded can be frightening and cold. Be prepared.

Tire chains and a small snow shovel should be included in your car's winter safety kit. The chains will help your car get traction in deep snow and the shovel will be a big help if you have to dig your car out from a snow pile.

Battery jumper cables can be a lifesaver if your car needs a "boost." A small bag of abrasive material (such as sand or salt) and traction mats can help if your car is stuck on an ice patch. The AAA also suggests that you keep in your car a flashlight with good batteries and a transistor radio with extra batteries.



If your car does break down or gets stuck, stay with the car. Trying to walk in horrible weather conditions can be dangerous. Wait for help.

Be winter wise this year.

Membership

Altoona	186
Central Ohio	76
Charleston	67
Clearfield	56
Cuyahoga Valley	112
Delaware Valley	324
East Penn	107
Franklin	243
Harrisburg	282
Lake Erie	68
N. Central WV	39
N.E. Penn	111
Ohio Valley	25
Pittsburgh	273
S.W. Penn	112
Western Reserve	78
Williamsport	116
TOTAL	2275

Dept. of Transportation 34.9%
Consultants 23.4%
Contractors 22.7%
Other 19%

Professional Status 38.8%

CHANGE OF ADDRESS?

Please Note . . .

Postage is one of our most expensive items. It costs 25¢ for each letter we get back with the wrong address. Please help us by sending us your change of address when you move.

Thank you.