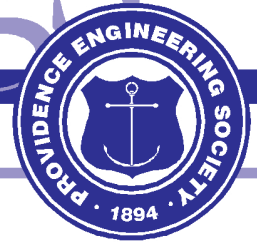


Engineerings

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October 1999 Volume 75 Number 2

The Providence Engineering Society - Looking Ahead

A look ahead to the coming year and the future of the Providence Engineering Society as the new millenium approaches.

*by Roy L. Bouvier, Editor/Publisher of Engineerings;
President, Providence Engineering Society*

At the Annual Meeting in June of this year, I had the honor of being installed as president of the Providence Engineering Society for the coming year. I would like to thank the Board of Trustees and the membership for this opportunity to guide the society into the next millenium.

Many of you know me as the editor and publisher of the Engineerings newsletter for the past seven years. However, you may not know I have been an electrical engineer for almost 20 years. For the last several years I have offered technical marketing expertise to a number of companies. Because of my background, I have always been interested in how best to market the society.

In the coming year, we will be mounting an effort to increase membership by encouraging young graduating engineers to join the PES. We will be visiting the heads of the local university engineering departments in an effort to gain access to these potential members. We will be designing an informational brochure with membership application that we can leave with these engineers.

However, even with these efforts, the inevitable question that will be asked of us is "Why should I join?" Our task in the coming year will be to create legitimate answers to that question.

In order to position the PES as a more effective information resource, we will be launching a web site that will be operational this fall. The website will feature an online version of the newsletter, as well as online links to all the major engineering organiza-

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Make Your Reservations Today To Attend the Affiliate Dinner Meeting, Thursday, October 28, 1999 at the Metacomet Country Club, East Providence, RI

Robert D. Billington will be guest speaker.

(see details page 5)

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Calendar of Events

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DATE: TBA DAY: TBA TIME: TBA LOCATION: TBA SPEAKER: TBA TOPIC: TBA	DATE: OCT 28 DAY: THURSDAY TIME: 5:30PM REG, 6:00PM CKTLS, 7:00 DINNER/ PROGRAM LOCATION: METACOMET COUNTRY CLUB, E. PROVIDENCE SPEAKER: ROBERT BILLINGTON, BLACKSTONE VALLEY TOURISM JOINT MEETING WITH PES AND RISPE	DATE: TBA DAY: TBA TIME: TBA LOCATION: TBA SPEAKER: TBA TOPIC: TBA	DATE: TBA DAY: TBA TIME: TBA LOCATION: TBA SPEAKER: TBA TOPIC: TBA
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Notice Regarding Contributions: Contributions and Gifts to the Providence Engineering Society may not be tax deductible. Please consult your tax advisor before taking any action that would affect your tax situation.

Engineering (USPS 176-520) is published by the Providence Engineering Society, Nine Newman Avenue, P.O. Box 16610, Rumford, RI 02916-0689 monthly except June, July, and August. Periodical Postage paid at Providence, RI. Subscription price \$1.80 per year with membership. Advertising rates are available upon request. Tel (401) 434-2332, Fax (401) 434-2739.

Providence Engineering Society Office Hours are 9:00 AM to 4:00 PM, Monday through Thursday

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Affiliate members each receive a monthly copy of "Engineering" and are urged to submit events and/or articles for publication prior to the 10th of each month.

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(401) 434-2332.

Providence Engineering Society Announces College Scholarship Eligibility for The Year 2000

The Executive Board of the Providence Engineering Society (P.E.S.) is once again pleased to announce the availability of at least one college scholarship award in the amount of \$1,000 for the 2000-2001 academic school year. This will be first PES College Scholarship to be awarded to an engineering student in the 21st Century.

Eligible scholarship award candidates must be (1) a member or a descendant of a living member of the P.E.S., or a member or a descendant of a living member of an affiliate organization of the P.E.S.; and (2) a student enrolled in an accredited engineering or approved technical and/or engineering-related program leading to a Bachelor of Science degree. All student applicants must be full-time students and must have completed at least two full academic semesters at the time of application.

Members of the Providence Engineering Society and members of our affiliate organizations are strongly encouraged to seek out relatives who may be prospective candidates. If you know of any individual who may be qualified for the scholarship award for the 1999-2000 academic year, please contact the P.E.S. office (401-434-2332) to request a scholarship application form. The application must be accompanied by a complete academic transcript through Spring 1999. The Fall 1999 grades will be forwarded to the P.E.S. office for record purposes as soon as they become available to the student applicant. The filing deadline is December 31, 1999.

If you have any questions regarding the eligibility of a prospective student for this scholarship award, please contact Robert Anderson at (508) 543-1700 during the daytime hours.

Larry's Corner

by L. Robert Smith F.ASCE
Past President, Providence Engineering Society

"Aerial Surveillance"



There are certain individuals for whom there is no task too simple to complicate. We were retained to do a study of McCoy Stadium, in Pawtucket, many years ago. The thrust of the study was to assess a number of structural problems at the Stadium. As part of our report we were to also evaluate the condition of the seats. My suggestion to the project manager was to enlarge a copy of the seating plan that the Paw Sox had on their schedule and let the surveyors go through and reference all the bad seats with a dot and write down what was wrong with the seat on a separate pad. The next I heard, the project manager had the surveyors go out and lift the seat of any chair that was good. We have used a gentleman with a small plane, in the past, to take low altitude color photos of sites for us. The project manager had him fly over McCoy and photograph the seats. He had the photos enlarged and was able to determine which were the bad seats. Only there were a few problems. Some of the chairs which were broken were missing their seats. In the photo they were considered good in that the seat which was missing appeared to be "up". An even bigger problem is that most of the seats in McCoy are obscured from aerial view by the roof on the Grand Stand. Trying to photograph the seats at an angle only showed the backs. The crew had to go back, with a blow up of the seating plan and a pad, and list the problem seats. This attempt to simplify this simple task only cost us a grand. However this was when a new car was selling for about two grand.

We had a sewer project for which we were going to have the topography done by aerial photogrammetry. The survey crew went out to paint targets, or so I thought. That night, my phone rang at home. It was the Mayor of the community where the job was located. He had received calls of complaints from people in the neighborhood. Their streets looked like circus wagons or a New York City subway car. I told him that we were required to paint white "x's" as ground control for the aerial photos, but there were only about fifteen of those, and they were spread out all over the place. He told me that the streets were covered with geometric shapes, in putrid colors, all over the place. I told him I would take a look on my way in to work in the morning and would call him as soon as the City Hall opened. The next morning I went to the area and I was thankful I hadn't eaten breakfast. Gas valves had a large triangle painted around them. Water gates were in a square. Manholes had a huge circle around them. Telephone manholes had the same circle with a big "T" and Electrical manholes had the circle and an "E". The best was reserved for catch basins. They had a large rectangle with rays radiating out of it. Hydrants were denoted by a large "H". All were painted in bright pinks, purples, yellows and chartreuse. I couldn't wait to get to the office to hear this explanation. The engineer who was in charge of the job thought it would make it easier to edit the plans and show the existing utilities if we marked them so as to be visible in the aerial photos. Never mind that it was going to take weeks to get them painted. The horrible colors were to save me money. The hardware store where we had an account always had a table set up with cans of paint that they couldn't sell or they had mis-mixed. We got the paint for \$6 a gallon. The people would only have to look at this for a year or two, as when the sewers were installed, the streets would be overlaid with

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pavement. Now we had to go buy black paint and go paint out these abstract works of art. I called the mayor and told him that the aerial photogrammetrists had asked us to paint a few streets as a controlled experiment, but seeing it was upsetting people we were going to paint them out with black. You would think that black would be a leader in the discount paint section, but you would be wrong. It was available only in an enamel finish, for bathrooms, I guess, and was a steal at \$22 a gallon.

I attended a talk on low level aerial photography, presented by an engineer who used to estimate the amount of ledge to be removed in a small road connection. Conventional aerial photography had been used originally and they had estimated about 500cy of ledge. They went back and ran special control and did the close up photography. The ledge estimate was revised to 423cy. I figured that if the ledge was worth \$30/cy to remove they were talking of refining the bid price by about \$2300. When the contractor was through blasting and they computed the ledge removed to the payment limits, they found there was actually 450cy removed. The engineer felt this was proof that their method was much more accurate. Someone asked how much this additional level of accuracy had cost. The answer was around \$6500. He couldn't understand why this answer would provoke laughter. I voiced the opinion that I thought he was trying to get the weight of a flea by weighing a dog with a flea and then weighing the dog without the flea, and taking the difference to be the weight of the flea. Someone else said they were buying \$5 bills for \$10 apiece. The engineer giving the talk told us we were just opposing advances in technology and were too tied up in the cost aspect to appreciate it. I guess we were.

PES Announces Board Of Trustees

Robert Anderson, Chairman of the PES Board of Trustees has announced the current members of the Providence Engineering Society's Board of Trustees. Trustee members serve for a period of 3 years as measured from the time of appointment during the month of June at the end of the Society's given operating year. Vacated positions or reappointments are made upon expiration of the respective terms.

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June 2003

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June 2000

June 2000

June 2000

June 2000

June 2000

June 2000

June 2000

June 2000

June 2000

June 2000

June 2000

"SOCIETY" continued from page 3

tions. Web space will be made available to all of our affiliated societies. A prominent calendar will keep visitors apprised of all upcoming events. We will post schedules for continuing education engineering courses at our local universities and we will offer links to over 100 of the Internet's best business websites.

In order to offer technical presentations and additional networking opportunities to our members, we will co-sponsor a number of dinner meetings with our affiliates and be the primary sponsor of at least one dinner meeting. The first of those meetings is scheduled for Thursday, October 28, when a joint meeting is scheduled with ASCE and RISPE. We will, of course, continue to hold the Annual Banquet, the year's premier event for all our local engineers.

These efforts will keep us very busy; however, we hope to have the time to work on additional areas that will enhance the society's attractiveness to new members.

It is clear that the Board and I address the future of the society by building some new bridges. I will do my best in the coming year to help ensure the society's longevity.

Editor's Note:

Letters, story ideas, and material are welcomed and encouraged. If you have an opinion, press release, or story that you feel is worth sharing, forward it to me via fax at (401) 823-4850 or mail to: Techwrite Services, 3 Congdon St., Coventry, RI 02816, or by Email via techwrite-svcs@home.com.

Southern RI Regional Collaborative Seeks Support-Volunteers

The Providence Engineering Society is currently assisting the Southern RI Regional Collaborative in soliciting interest and volunteers for the FIRST Robotics Competition associated with their School-to-Career Program. "FIRST" is an acronym which stands for "For Inspiration and Recognition of Science and Technology". It is a non-profit organization whose mission is to generate an interest in science and engineering among today's youth. Presently, its primary means of accomplishing this goal is through its annual robot competitions, which began in 1992.

The FIRST Robotics Competition is a national engineering contest that immerses high school students in the exciting world of engineering. Teaming up with engineers from businesses and universities, students get a hands-on, inside look at the engineering profession. In six intense weeks, students and engineers work together to brainstorm, design, construct and test their "champion robot". With only six weeks, all jobs are critical path. The teams then compete in a spirited, no-holds-barred tournament complete with referees, cheerleaders and time clocks.

The partnerships developed between schools, businesses, and universities provide an exchange of resources and talent, highlighting mutual needs, building cooperation, and

exposing students to new career choices. The result is a flux, exciting and stimulating environment in which all participants discover the important connection between classroom lessons and real world applications.

Each year, the competition is different, so returning teams always have a new challenge to look forward to. However, the details are kept secret until the unveiling at the Kick-Off workshop. This provides a high level of excitement as everyone sees the new challenge for the first time and ideas immediately begin forming in people's minds.

There are several ways in which a sponsor can support the Chariho Team: donating the time of an enthusiastic engineer or technician; hosting instructional site visits or skill-building sessions; donation of funds to help defray entrance and travel expenses; and assisting with fund raising of team building exercises. For more details, please contact Mr. Joseph Potenza at (401) 782-6540 or via E-MAIL at jptenza@ride.ri.net. You can also visit the FIRST website at www.usfirst.org.

**1999 ANNUAL AFFILIATES' DINNER MEETING
(JOINT MEETING OF THE PES, RISPE, & ASCE)
METACOMET COUNTRY CLUB
EAST PROVIDENCE, RI**

DATE: Thursday, October 28, 1999

GUEST SPEAKER

**ROBERT D. BILLINGTON, PRESIDENT
BLACKSTONE VALLEY TOURISM COUNCIL, INC.**

TOPIC: BLACKSTONE VALLEY TOURISM VISION

**REGISTRATION: 5:30PM - 6:00PM SOCIAL HOUR: 6:00PM - 7:00PM
DINNER & SPEAKER: 7:00PM**

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PLEASE RESERVE YOUR FIRM'S TABLE EARLY.**

RESERVATIONS MUST BE MADE BY FRIDAY, OCTOBER 22.

The Passing of a Colleague, Roger W. Anthony, PLS, 1952-1999

Alfred W. DiOrio, PLS, RISPLS Past President

It is with some difficulty that I start this article...it's a daunting task to attempt the capture of a man's life in words alone. However, Roger was a friend, confidant, and contributor to our community and I owe him at least my best effort...

For those of you that might not have known Roger: He was born in Warwick and eventually settled in North Kingstown. He attended Rhode Island Junior College and Worcester Polytechnic Institute. He held registration as a Professional Land Surveyor in Rhode Island and Connecticut. He founded Anthony & Associates in 1983 and transformed that firm into Land Use Specialists in 1988. Roger was appointed to serve on the Board of Registration for Professional Land Surveyors in 1995 and was elected Chairman of that Board this year.

He was a Past President of the Rhode Island Society of Professional Land Surveyors and served as Treasurer for the Society for a number of years. In 1998, he was honored as the Society's Professional Land Surveyor of the Year. He was also a member of the American Congress on Surveying and Mapping, the National Society of Professional Land Surveyors, and the Connecticut Association of Land Surveyors.

Roger was easy to speak with and had a profound sense of professionalism. He was very proud of being a surveyor and it was perhaps this trait that most endeared him to me. From the onset, I found myself drawn into wonderfully lengthy discussions with Roger covering a myriad of topics. Whether it was discussing the current state of affairs of the Society, harping on issues perceived important to the profession, or struggling with my own survey project issue, Roger was always attentive to the facts and prepared with helpful suggestions. There were many times when I turned to Roger for advice on sensitive issues that simply could not be trusted with anyone else.

Roger was an important resource for me personally and certainly to the surveying community. His enthusiasm for surveying and his unswerving professionalism will remain as monuments to his presence. Surely, footsteps to follow...

Derivation of Old Sayings

Life in the 1500s This is really interesting (and TRUE!!)

Most people got married in June because they took their yearly bath in May and were still smelling pretty good by June. However, they were starting to smell, so brides carried a bouquet of flowers to hide the b.o.

Baths equaled a big tub filled with hot water. The man of the house had the privilege of the nice clean water, then all the other sons and men, then the women and finally the children. Last of all the babies. By then the water was so dirty you could actually lose someone in it. Hence the saying, "Don't throw the baby out with the bath water."

Houses had thatched roofs. Thick straw, piled high, with no wood underneath. It was the only place for animals to get warm, so all the pets ... dogs, cats and other small animals, mice, rats, bugs lived in the roof. When it rained it became slippery and

sometimes the animals would slip and fall off the roof. Hence the saying, "It's raining cats and dogs."

There was nothing to stop things from falling into the house. This posed a real problem in the bedroom where bugs and other droppings could really mess up your nice clean bed. So, they found if they made beds with big posts and hung a sheet over the top, it addressed that problem. Hence those beautiful big 4 poster beds with canopies. I wonder if this is where we get the saying "Good night and don't let the bed bugs bite".....

The floor was dirt. Only the wealthy had something other than dirt, hence the saying "dirt poor." The wealthy had slate floors which would get slippery in the winter when wet. So they spread thresh on the floor to help keep their footing. As the winter wore on they kept adding more thresh until when you opened the door it would all start slipping outside. A piece of wood was placed at the entry way, hence a "thresh hold."

They cooked in the kitchen in a big kettle that always hung over the fire. Every day they lit the fire and added things to the pot. They mostly ate vegetables and didn't get much meat. They would eat the stew for dinner leaving leftovers in the pot to get cold overnight and then start over the next day. Sometimes the stew had food in it that had been in there for a month. Hence the rhyme: peas porridge hot, peas porridge cold, peas porridge in the pot nine days old."

Safety Association of Rhode Island Requests Articles

The Safety Association of Rhode Island requests that articles related to subjects of safety in the workplace be submitted for use in its monthly "Safety Shorts" series of articles that appear in the "Engineering" newsletter.

Any ideas for articles or submissions of approximately 200-300 words should be sent on disk in any major word processing format to the attention of Ted Muldoon, St. Joseph's Hospital, 21 Peace Street, Providence, RI 02907, Tel.: (401) 456-4454.

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