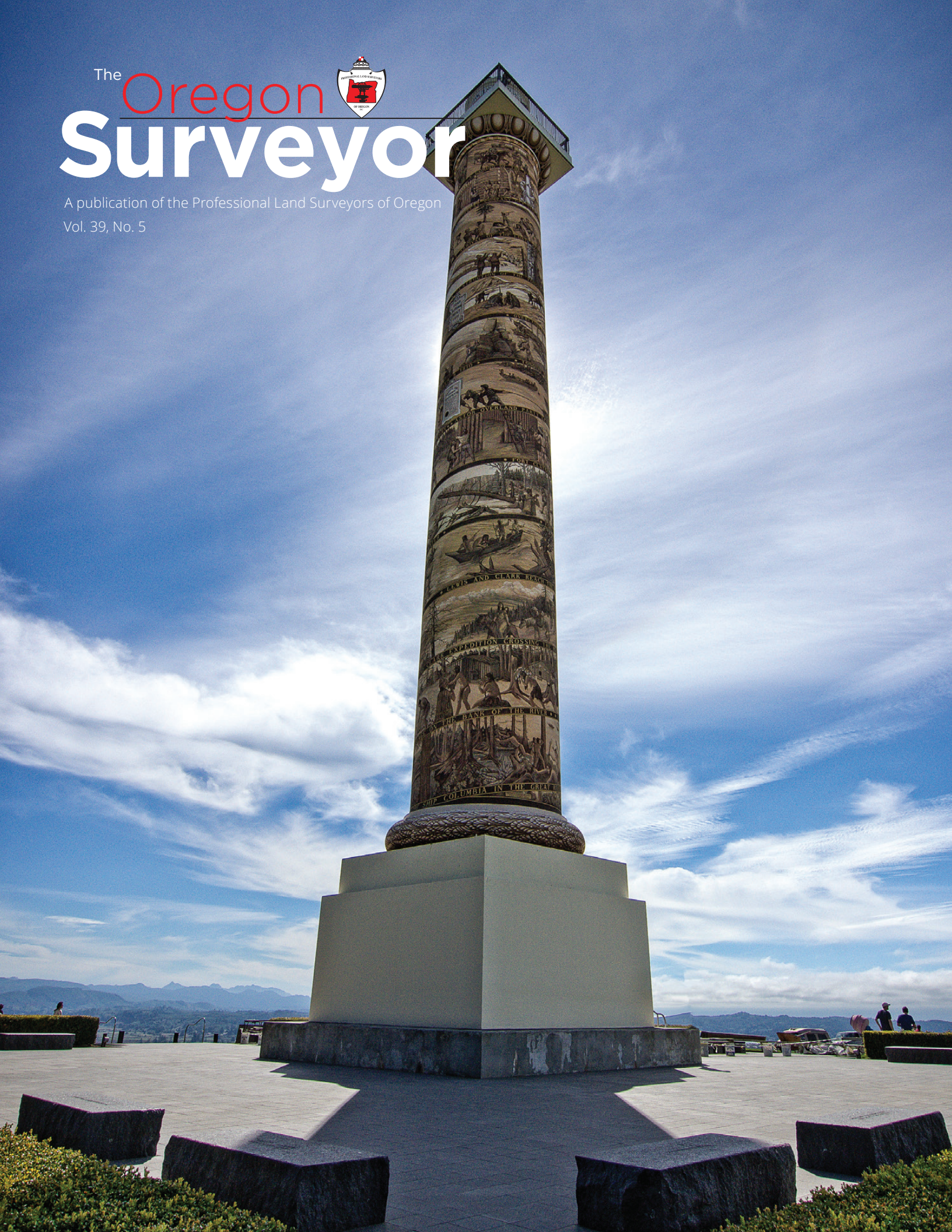


The Oregon
Surveyor



A publication of the Professional Land Surveyors of Oregon

Vol. 39, No. 5



TAKE MAPPING TO A LEVEL ABOVE AND BEYOND.



THE TRIMBLE UX5 AERIAL IMAGING SOLUTION IS SETTING THE STANDARD FOR FAST AND SAFE AERIAL DATA COLLECTION BY KEEPING YOU PRODUCTIVE ALL DAY LONG – NO MATTER WHAT THE JOB.

Whether you choose to fly in rainy conditions along windy seashores, in hot deserts, or in an open pit mine, the Trimble® UX5 is a complete solution designed for mapping and surveying professionals who require the highest accuracy. The Trimble UX5 employs powerful technologies, such as reversed thrust and automatic fail-safe procedures, and a robust design to ensure a safe flight and optimal image quality.

Plan, execute, and monitor your flights with a single software tool, the Trimble® Access™ Aerial Imaging application. After the flight, use the Trimble Business Center Aerial Photogrammetry module to process the data and produce deliverables—no specialized photogrammetry knowledge or experience required. With this complete UAS solution, your business or organization will go above and beyond the rest.

For more information, visit: Trimble.com/UAS



Geoline Inc: Bellevue
13218 NE 20th St, Suite 400
Bellevue, WA 98005
(425) 452-2700
sales@geoline.com
www.geoline.com

Geoline Inc: Portland
7800 SW Durham Road
Tigard, OR 97224
(800) 523-6408



A publication of the

**Professional Land
Surveyors of Oregon**

Executive Secretary

Aimee McAuliffe
PO Box 230548
Tigard, OR 97281
503-303-1472
Toll-free: 844-284-5496
execdirector@plso.org

www.plso.org



Professional Land Surveyors of Oregon



Professional Land Surveyors of Oregon



@ORLandSurveyors

Publications Committee

Greg Crites, PLS, *Editor*
gac@deainc.com

Paul Galli • gallip@co.cowlitz.wa.us
Chuck Wiley • charleswiley@gmail.com
John Thatcher • johnsue648@gmail.com

Cover photo

Pat Gaylord, PLS

**Published by
LLM Publications**

PO Box 91099
Portland, OR 97291
503-445-2220 • 800-647-1511
www.llmpubs.com

Advertising

Nicole Gardner, nicole@llmpubs.com

Design

Benjamin Caulder, ben@llmpubs.com

Contents

Editorials

From the Editor, <i>by Greg Crites, PLS</i>	2
From the PLSO Office, <i>by Aimee McAuliffe</i>	3
From the PLSO Chair, <i>by Leland Myers, PLS</i>	4

Articles

The Working Life, <i>by Mary Abbajay</i>	5
Pokemon & GeoCaching, <i>by David Wellman, PLS, PE</i>	8
PLSO Lobbyist Board Report 2016	12
Eugene's Historic Plaque, <i>by Christian Hill, The Register-Guard</i>	13
Blast from the Past, <i>by Paula Abbott</i>	16
Making the Most of First Impressions, <i>by Lydia Ramsey</i>	19

Columns

The Lost Surveyor, <i>by Pat Gaylord, PLS</i>	14
---	----

On the Cover

Astoria Column located on Coxcomb Hill in Astoria, OR celebrates its 90th anniversary this year.

Cover Photo Inset	20
-------------------	----

Photography by Pat Gaylord

The Oregon Surveyor is a publication of the Professional Land Surveyors of Oregon (PLSO). It is provided as a medium for the expression of individual opinions concerning topics relating to the Land Surveying profession.

Address changes & business All notifications for changes of address, membership inquiries and PLSO business correspondence should be directed to Aimee McAuliffe, PO Box 230548, Tigard, OR 97281; 503-303-1472; execdirector@plso.org.

Editorial matters & contributions of material *The Oregon Surveyor* welcomes your articles, comments and photos for publication. PLSO assumes no responsibility for statements expressed in this publication. Editorial matters should be directed to Greg Crites, gac@deainc.com.

Advertising policy Advertising content and materials are subject to approval of the PLSO Board and LLM Publications. The publisher reserves the right to reject any advertising that simulates copy; material must be clearly marked as "Advertisement."

For advertising, contact: Nicole Gardner, nicole@llmpubs.com; 503-445-2233, 800-647-1511 x2233.

So You Want to Be a Mentor?

By Greg Crites, PLS



There's been quite a bit of discussion within this magazine regarding mentoring. Primarily in hopes of attracting and retaining replacements for the bulk of licensed individuals in our midst that are on the verge of retirement. Readers of this magazine are well aware that we seem to be standing at a critical crossroad in our profession. On the one hand, we're facing the aforementioned shortage of land surveyors, but we're also facing a perceived crisis of relevance. Mentoring has been suggested as one remedy for this situation. Before we throw our hats completely into the ring getting behind this idea, some thoughtful discussion needs to occur regarding implementation.

Switching gears for a bit of perspective, I'd like you to think back to your own educational experiences. Particularly regarding who among all the teachers you had that represented a positive experience, leaving you with the feeling that you actually learned something. I may ruffle a few feathers when I say that frankly, some of the folks I had were unsuited for the classroom, yet they were there, and it seems we, as students, had no recourse if we felt their skills needed to be challenged. From a very simplified perspective, to become a teacher, at least through high school, generally required a college degree, one with a focus on education, surviving an internship to see whether you exhibited the qualities necessary to be successful in the classroom and most importantly, whether peer evaluations indicated that you had what it took to teach (notice I left out student evaluations). If you've suffered through undergraduate courses in college where the instructor was a graduate student with limited or non-existent teaching credentials, you clearly understand that your intelligence is *not* a free pass to qualification as a teacher. Personally, I believe a system that evaluates qualifications for teaching that ignores the opinions of the students is seriously flawed, if for no other reason than how the system that is currently in place doesn't weed out those folks that have no business in the classroom.

Okay then, who among us is qualified to serve as a mentor? Who will make those decisions? Considering the perceived importance of this role, don't you think it's incumbent on us to make certain that we get the right folks in front of future surveyors, hopefully insuring their desire to continue along a land surveying career path, and perhaps encouraging them, by example, to take a more active role in professional activities? Frankly, I don't think the possession of a professional license is a guarantee that you'll make a good mentor. I do believe that with the number of folks retiring from this profession over the next few years, there is certainly a wonderful pool of candidates to draw from. What we don't have is an agreed upon organizational structure that evaluates suitability, identifies the means and methods to place qualified mentors where they may be needed or desired, and coordinates an ongoing program to make certain there are mentors available (I've heard rumors that someone among our ranks has been working on this, but I'm not naming names). This should raise many questions about how such a system should be structured, who should participate and most importantly, how we make the public aware of such a program? After all, a mentor can also serve as one of the most effective ambassadors for this profession.

I think I hear the word "outreach" somewhere. Isn't that what we've been talking about, and how we all sense its importance? I think it's time to quit talking about a mentoring program and develop an effective means of implementation. If you feel the same, let your voice be heard. Talk with your local chapter officers and share your thoughts for how this might work. Having a bunch of lone wolves out there who are performing outreach activities without being a part of a larger, coordinated approach, diminishes our ability to be effective. Let's get this party started! 🍷

The Power of Mentorship

By Aimee McAuliffe, PLSO Exec. Secretary

I am who I am because people invested in me. As a recent college graduate, I wasn't someone that automatically knew how to navigate office politics or communicate properly on project expectations. I didn't know there was a strength in asking questions and I most certainly didn't know how to sell myself in an interview. I was, however, a hard worker, fast learner and, most importantly, I cared about everything I worked on. What is the difference in these two lists that, when considered together made up one person? One is learned and the other innate. But the ideal professional can't really exist solely on one set of values. You may be the most sophisticated person with enough charm to sell ice to an Eskimo, but if you don't really care about your work or have the willingness to put the time in, people notice. What happens when people find that out about you? The answer is: they find you annoying and are not particularly eager to work with you.

For me, it took a lot of mistakes and incredibly difficult bosses to find someone that really took me under their wing. When I say difficult boss, I mean everything from conducting all phone calls on speaker phone with their door open, at octave 9 (we're talking even their dating coach) to not communicating how to do something because short-term thinking decided that it was just easier to do it themselves. What was I doing there? How was I going to do it better the next time?

When I met my mentor, I didn't realize how important she would become to me. It was a grueling two-years working for her. Not because she was broadcasting a medical diagnosis or dissecting her latest It's Just Lunch encounter via megaphone (that was the boss before her), but because she expected a lot from me. Sometimes I fell down and sometimes I flew above the tree line. Either way I learned. The experience change me! I still remember the time, upon leaving that job and returning to Oregon, when I had just completed my first large-scale event on my own and emailed her to say thank you. She was quite surprised. Her response was: "Thank you for your sweet words, but you're giving me credit for something you did entirely on your own merit and hard-work." Though that may technically be true, it's not entirely true now is it?

That is the power of a mentor.

No matter who you talk to in the surveying profession, they will all tell you the same thing.

We are facing serious issues when it comes to our future work-force. Not because they aren't smart. It's because they aren't *there*. Attrition is outpacing our graduation and licensure rates. School programs are facing closure for lack of enrollment and are looking to us to communicate and support our needs as a profession. Graduates are getting frustrated with the process of becoming licensed. It's time to call in the cavalry! We have problems to solve folks and we need our professional community to help solve them.

One such program that has been slowly gaining momentum is the Mentorship Program. PLSO serves as a conduit between students and associates looking for mentors. Past Chairman Lee Spurgeon has kept this on a slow burn for the past few years and we are now working towards making it a vital program.

Research out of North Carolina State University states that "young people who have had mentors are more likely to find work early in their careers that gives them more responsibility and autonomy—ultimately putting them on a path to more financially and personally rewarding careers." While we all can relate to "show me the money," the truth is, intrinsic values are ranked high when choosing and staying on a particular career path. It is my belief, that mentoring is a small step towards our current workforce dilemma and I can't tell you how much I appreciate Lee Spurgeon and the Education Goals and Action Committee for listening to the needs of our schools.

Winston Churchill once said, "we make a living by what we get, we make a life by what we give." I couldn't agree with this more. The most successful, happy people I know are involved in their community or giving a part of themselves in one way or another. The only way we can make the Mentorship Program a success is through participation. That means, we need you! We need you to sign up for whatever commitment you are capable of keeping. Not only are you helping build the future of surveying, but you could be grooming a potential employee.



Continues on the bottom of page 4 ▶

Chairman Comments

By Leland Myers, PLS

Bob Taylor's Cornucopia article in the last issue of "The Oregon Surveyor" gave me a little inspiration for this writing.

I have had the privilege to survey in several Northeast Oregon ghost towns like Cornucopia. My definition of ghost town is different from some folks, though. In my view, a ghost town does not have any occupied buildings or houses, and sometimes no evidence of a town still exists at all. There are several books that list the so-called ghost towns, including Sumpter, my hometown. However, I classify most of them as old mining towns. We have some stores, telephone service, mail, and other services. Private rather than federal ownership is the norm, not the exception.

An example of what disturbs me about the ghost town classification: we were sitting at our dining room table having supper when, without knocking, some strangers walked in the front door of the log cabin that my mom and dad, two brothers, and I built in the 1950s in Granite. We asked what they wanted and they replied, "This is a ghost town isn't it?" No respect for private property rights.

Surveying in these old towns can be quite a challenge as well as an exercise in archaeology. It's interesting what you can find in evidence of occupation—including the remnants of old streets and roads—when you look hard enough. Most of these old mining towns were surveyed by the mine promoters, but not necessarily monumented with anything more than wood stakes. Fitting buildings, or remnants thereof, and other evidence to the old plats can be rewarding when the distances and bearings tend to check out.

One of the things that helps in surveying these old townsites is that most of them have mineral surveys within their bounds and those generally are well

monumented. They sometimes made ties to buildings or other improvements that no longer exist, which can be helpful in finding lot locations. Many of the old towns were lost to fire or flood, but with careful study usually useful evidence can be found.

I have lived in one of the old mining and railroad towns for fifty-plus years and we have over 200 lively ghosts here. I may not have some of the benefits of living in a larger community, but I have a deep-rooted history, of which I am very proud, of four generations that have lived and worked in the Sumpter-Granite area. I sometimes wonder if we should have more old ghost towns to help train new surveyors in finding and evaluating evidence, a process that could cause us all to be more observant. ▽



The Myers Family Cabin is not as rustic as Bob Taylor's Cornucopia cabin, but Bob and I have come from similar roots.

Continued from page 3 ▸

Mentorships may include ride-alongs, one-on-one tutoring, internships, mentoring for high school senior projects, and chances for professional collaboration. We are currently looking to build a database of participants ready to assist in all parts of the state.

For more information, go to www.plso.org/Mentorships contact me at the PLSO office or Lee Spurgeon directly at Township Surveys, (503) 656-4915.

The Working Life

The Importance of Workplace Mentors

By Mary Abbajay

Most adults can identify a person who had a significant and positive impact on them. Whether it was a teacher, a coach, a boss, a scoutmaster or a parent, chances are that someone, somewhere along the line acted as a mentor to you. Today, more and more businesses are embracing the concept of mentoring as a professional development tool. Through mentoring, organizations are seeing dramatic improvements in efficiency, productivity and, of course, the passing of institutional knowledge and leadership skills from one generation to the next.

A Time Tested Method

Mentoring is one of the oldest forms of influence and knowledge sharing. It started with the Ancient Greeks; Mentor was Odysseus' trusted counselor and advisor. Mentoring is when one individual actively and willingly passes his/or knowledge and wisdom onto another person. A mentor is an individual—usually older, but always more experienced—who helps and guides another individual's development. This guidance is done without the expectation of personal or monetary gain on the mentor's part. Mentors can be friends, relatives, coworkers, teachers, supervisors, etc. There is no official title.

Mentoring vs Coaching

Because both mentoring and coaching have become popular tools in the field of employee development, the two are often confused. While both utilize many of the same skills, being a mentor implies some specific organizational or industry knowledge that helps guide the protégé's career. Coaching, on the other hand, is more about bringing an objective process to help someone articulate and achieve his goals. In general, to be a coach, one does not need particular organizational or industry expertise and, in fact, most coaching is more about personal perspective and personal impact than specialized knowledge. Coaches are process experts. Mentors are task experts. Coaching is about skill development. Mentoring is about skill development AND specialized knowledge transfer. When done correctly, it's a powerful double whammy.

Why Mentoring is Important

Mentoring is a tool that organizations can use to nurture and grow their people, and it's gaining in popularity. As organizations strive to retain hard earned experience and wisdom, they are turning to mentoring programs as a form of interpersonal knowledge management. Protégés observe, question and explore, while mentors demonstrate, explain and model. I know that coaching is a big thing in organizations today. While coaching can definitely help individuals become better leaders and managers, it doesn't really tap into the collective wisdom of people who have succeeded inside specific organizations or industries. Mentoring, on the other hand, can help employees navigate organizational culture, solve problems and advance their careers. Mentoring is a great way to make sure the talent pipeline is filled with people ready to manage and lead. Additionally, organizations are using mentoring as a way to retain and recruit talent. As Millennials hit the workforce in huge numbers, mentoring has become a key tool for both recruiting and retention.

What Makes a Good Mentor?

A good mentor needs to be more than just a successful individual. A good mentor must also have the disposition and desire to develop other people. Great mentors must be able to both "talk the talk" and "walk the walk." Being a good mentor requires more than just experience. It requires a willingness to reflect and share on one's own experiences, including one's failures. Great mentors are often those who are constantly trying to learn themselves. Essential qualities for an effective mentor include:

- A desire to develop and help others. A good mentor is sincerely interested in helping someone else without any "official" reward. Good mentors do it because they genuinely want to see someone else succeed.
- Commitment, time and energy to devote to the mentoring relationship.
- Current and relevant knowledge, expertise, and/or skills.

Continues 

- A willingness to share failures and personal experiences. Mentors need to share both their “how to do it right” and their “how I did it wrong” stories. Both experiences provide valuable opportunities for learning.
- A learning attitude. The best teachers have always been and always will be those who remain curious about learning. Because a mentor is more like a teacher than a coach, this becomes an important characteristic in a mentor. Would you rather be advised by someone whose mind is shut (because he knows all) or by someone whose mind is open because they are always looking to deepen their knowledge?
- A skill in developing others. This includes the very real skills of listening, asking powerful questions and being able to tell stories, which includes personal anecdotes, case examples and honest insight.

What Makes a Good Protégé?

Just as there are specific characteristics of a successful mentor, there are attributes that make a good protégé. This is important because protégés must remember that mentors are doing this from the goodness of their heart, so being a good protégé is the best way to ensure the relationship enjoys a healthy, purposeful existence. Protégés need to be:

- Committed to expanding their capabilities and focused on achieving professional results.
- Willing to ask for help.
- Open and receptive to learning and trying new ideas.
- Able to accept feedback—even constructive criticism—and act upon it.
- Willing to experiment and apply what they learn back on the job.
- Able to communicate and work cooperatively with others.
- Be personally responsible and accountable.
- Ready, willing and able to meet on a regular basis.

How to Make it a Success

Mentoring is a joint venture. Successful mentoring requires that both parties share responsibility for learning and sustaining the relationship. Successful mentoring begins with initiating the relationship, and then, to steal a coaching term, “designing the

alliance.” This means all parties need to be clear about what this relationship is going to look like and how it will be managed. Both mentor and protégé should discuss things like:

- Contact and response times
- Meetings
- Confidentiality
- Focus
- Feedback
- Goals and accountability

Mentoring vs Managing

Very often, in a formal mentoring relationship, your mentor may not be your supervisor or even in the same chain of command, but this doesn’t have to pose a conflict, as long as everyone is clear about their roles and expectations. The manager’s role in employee development is always paramount and should not be replaced or modified by an employee’s participation in a mentoring program. Mentoring is an additional and supplemental development tool for organizations, while a managers’ essential role is to support the professional learning process while also monitoring an employee’s performance. Managers fulfill a stewardship role in terms of day-to-day direct authority and capacity building, while mentors provide a broader and longer view that creates a path to the future. Effective and confident managers should take an active interest in the mentoring process through endorsing experimentation in a way that applauds new approaches and permits the possibility of mistakes. Good managers will also support and design learning assignments in partnership with the mentor and protégé. If enrolled in a formal mentoring relationship, it is always a good idea to respect the differences between a supervisor and a mentor and to openly discuss potential pitfalls.

Finding a Mentor

There are lots of ways to find a mentor. Check with your company first; they may have a program or an organization in mind. You can also check out professional trade associations and groups like SCORE, the Service Corps of Retired Executives. The best place to look for a mentor, however, is right in front of you. Look around your workplace or your industry. Who do you admire and respect? Who has always impressed you with their insight and perceptiveness? And finally, who do you feel drawn to? Consider

your boss. Or your boss's boss. Consider executives in other divisions. Consider older individuals who may not be top executives but who have tons of experience. Approach that individual and ask if they would consider being your mentor. Let them know why you selected them and what you hope to learn from them. It is really key to align your goals with their expertise and experience. Be prepared to talk about what the relationship might look like and how much time might be involved. There is a big difference between meeting someone for lunch on a quarterly basis versus a weekly phone call. Be clear what you want out of the mentoring process and structure your relationship accordingly. Don't put it off. What can you lose? Even if they decline to be your mentor, and few will, they will be flattered that you asked.

Starting a Mentoring Program

Finally, if you or your company is interested in instituting a formal mentoring program, it is important to, yes, find a mentor for the process. Research other programs, talk to other executives and find the one that fits your company.

When you have your program in place, remember to be flexible and inclusive when matching the mentor and protégé. The right mentor may not always be the first person you think of. It is also important to ensure that participants really want to do this! It can't be a "box" they check off; they have to have a genuine interest (and the aforementioned skill set) to participate.

You should provide some skill building and structure, especially in the introductory phase, and be prepared to support the program with best practices. Finally, don't forget to evaluate the program and incorporate the feedback. You want the program to be successful and worthwhile, so it needs to be given careful time and attention. ▽

Mary Abbajay is a partner in the Careerstone Group, a professional consulting company that specializes in leveraging generational diversity to support organizational success. She can be reached at mary@careerstonegroup.com. For more information on coordinating a mentorship through PLSO go to www.plso.org/Mentorships.

SURVEY

MARKING PRODUCTS

- SURVEY MARKERS & MONUMENTS
- CONCRETE MARKERS & DRILL BITS
- SURVEY NAILS & WASHERS
- REFLECTIVE TARGETS & PRISMS
- FLAGGING & WITNESS POSTS

WASER CONSULTING, P.A.
CONSERVATION LINE

JUDICIAL LANDMARK

APPALACHIAN NATIONAL SCENIC TRAIL
SURVEY MARKER
DO NOT DISTURB

WITNESS POST
PLEASE DO NOT DISTURB
NEARBY

SURVEY MARKER

FIND US ONLINE
www.berntsen.com

CONTACT US BY EMAIL
surveymark@berntsen.com

ORDER BY PHONE
877.686.8561

Berntsen®

MARKING THE INFRASTRUCTURE OF THE WORLD™ | WWW.BERNTSEN.COM

Pokemon & GeoCaching

By David Wellman, PLS, PE

The last two articles in the recent Oregon Surveyor inspired me to submit this article. I've submitted before but it has been a while and Greg's first articulation and request for material reminded me that it had indeed been a while. The second, being not my story of how I became a surveyor (however similar to Greg's), is my experience of how perhaps the notion of becoming a surveyor could be instilled in the younger generation.

So here goes...

There we were this July on a lovely summer vacation in the great State of Maine with some good friends and their family. Their children were 10 and 13. A boy and girl. Being from Maine I was proud to show off some of my old haunts, secret places off the tourist trail and of course allow time for the consumption of the ubiquitous Maine lobster in all the delectable forms. As we toured the State it became increasingly annoying to the parental elders of the entourage that the kids were riveted to their iPhones playing games. It was particularly annoying to me that they were not significantly impressed with the stellar New England coastal scenery and charm. The quaint fishing village, the lobster boats in harbors, blueberry barrens, or even the potential of spotting a moose wallowing in a roadside bog escaped their consciousness. Eyes were riveted to the Nintendo game of Pokémon with an uncanny attention span known only to computer literate youngsters. Squeals of joy and delight came from the far back seat as they "threw" balls at Pidgeys, Diglets, and some sort of animated dragon thingamajig. As we would pass a historic church, town library or Civil War statue they would cry out to stop the car so they could log in and hurl balls at these cloud based touch screen attackers—all the while never looking out the window at the reason for stopping. My irritation level was growing.

An unplanned medical emergency prompted a precautionary trip to the emergency room for the Mom. Her husband of course attended her trip to

the hospital as well as my wife who knew where the hospital was. That left me with two Nintendo crazed children for the day. What to do. I'm not an accomplished child sitter, but I had an idea. Let's go on a treasure hunt, I suggested. After the barrage of teenager questions of what, when, where, why, and how I took a deep breath and suggested GeoCaching. A true treasure hunt of animate objects. How novel? The idea was mulled around in the childlike brains and was accepted as being a legitimate afternoon activity. Yikes—now I'm in a spot. Never having GeoCached I was expected to perform at a professional surveyor level, if not parental level, and quickly. As I gathered my wits I suggested their must be an App for this GeoCaching stuff. They logged out of the Nintendo dribble and promptly found a free App and asked me how to make it work. Well let me tell you it is indeed very scary to try and impress preteen children with advanced iPhone brains on how to navigate the cloud. But triumphant we were, and in minutes out the door to a nearby cache site the location of which I knew something about.

And that's how it went for the entire afternoon. Lessons in coordinate systems, which way is north, how to decipher latitude and longitude, reading descriptions, really reading descriptions, really thinking when reading descriptions. And then there was the looking, really looking, and really reading the descriptions while really looking. Lessons in why we don't just run directly across private property. Lessons were given in map reading. Lessons in sometimes the walk is long and hot and buggy. How to have fun when the walk is long and hot and buggy. How to use GPS and what does it all mean. Realizing GPS may not be quite as accurate as you would think it should be. More serious looking. The treasure hunt was "game on". Talk about the squeals of delight when they found a cache. Talk about the pride in having navigated the web, the description, the hike, the terrain, the search and the recovery. Oh yes, and the prize. Then there is the recovery note taking, the logging in and signing off on



the find. Sound familiar? Isn't that the same thing we felt when we started searching for corners and continues to make us smile to this day?

More than anything I was pleased that they were getting out and looking at things around them. We visited old grist mill sites, ocean side ferry landings where the steamship ferries would dock in the 1800's, abandoned railroad right of ways, highway waysides next to clamming flats with workers out harvesting clams. Now they were seeing Maine.

These kids had seen me working the streets of Eugene in my orange vest standing behind a tripod waving my arms. They knew I was a surveyor, but little more than that. Our afternoon of "treasure hunting" allowed me to explain some of what surveyors do and that it could be a real job and is kind of fun to boot.

Mom came back from the emergency room thankfully without undo alarm. The usual answer to the question of "what did you do today" elicited an excited reply of "Dave took us surveying—we're geocachers". I was pleased. A job well done.

Back home in Eugene it is probably assured that the kids are back to playing Pokémon, but I was intrigued and pleased during a recent visit just a few weeks later. These two new surveyors had gone on to recover nine geocaches in their neighborhood.

Surveyors in the making? Maybe. 



On Paper. Online. On the Go.

LLM is on it!

Advertising | Design | Marketing | Web
We can update your marketing and advertising materials.

503.445.2220 | 800.647.1511 | www.LLM.com



US SURVEY SUPPLY

Precision Measurement & Control Solutions



Great products, superior service!

Introducing the new CR+ Robots and RT3 tablet



Fall Specials:
Network Rovers
RTK Systems
Robotic Systems

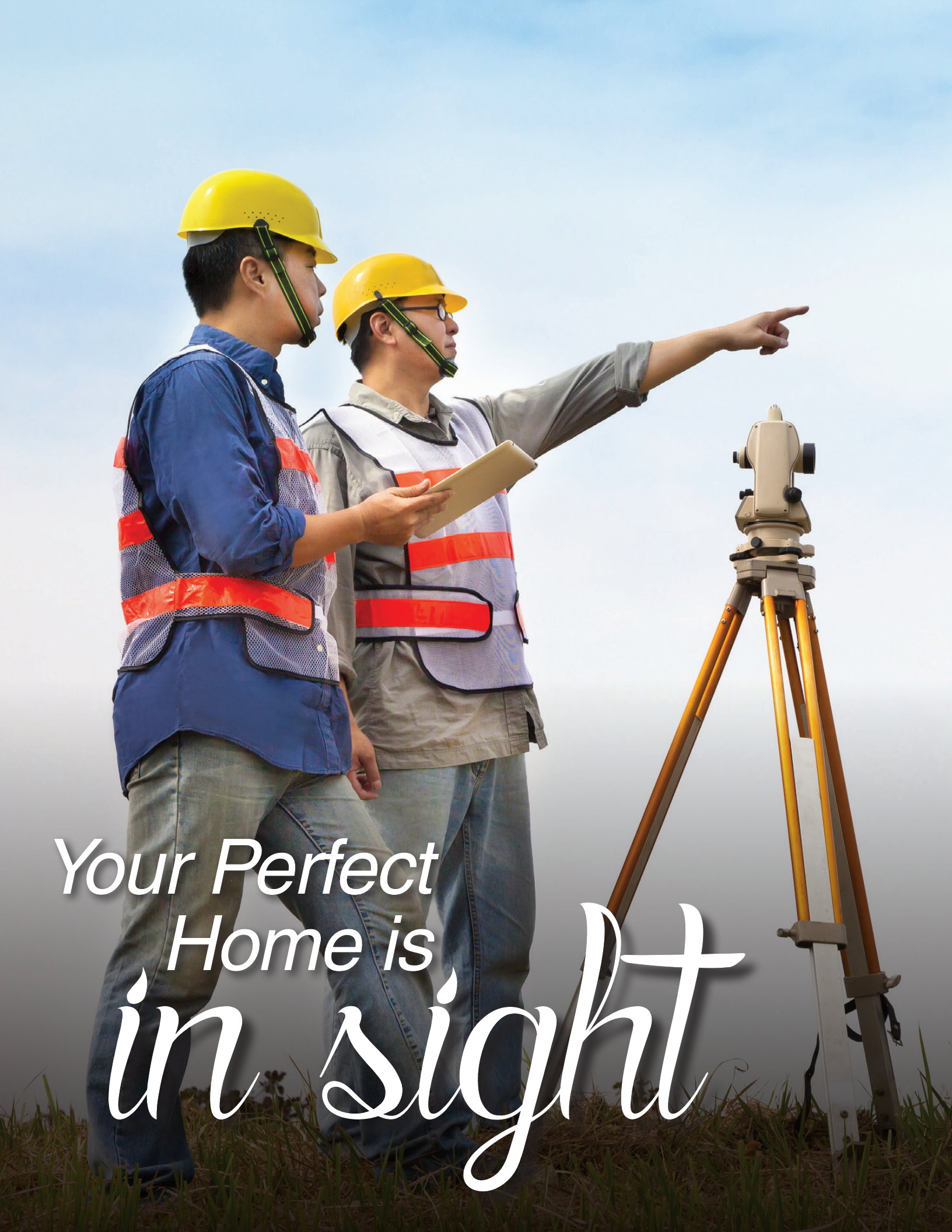


Mention this ad to receive a 25% trade-in bonus or a 5% discount plus you'll get our superior customer service for life, even on equipment we didn't sell.

Let us serve you from Bandon-by-the-Sea
Call or email us today!

(866) US SURVEY // (541) 347-5413 // info@ussurveysupply.com





*Your Perfect
Home is
in sight*

TOP 5%
AMONG THE TOP 5% OF AGENTS IN PORTLAND!

With 18 years experience and a background in residential and commercial construction, I am able to see a home's true potential. I notice things most do not, allowing me to give my clients the benefit of knowing what a contractor might say before consulting one.

I've lived three places in my life: Albuquerque, New Mexico; Orlando, Florida; and Portland, Oregon. Each has its own charms, but the Pacific Northwest has by far stolen my heart and I absolutely love every minute of every day here.

JB
Joshua Boes
REAL ESTATE

503.747.8515
www.joshboes.com

with



Licensed in Oregon
& Washington

facebook.com/joshuaboesModule



PLSO Lobbyist Board Report 2016

MEMORANDUM

Date: August 12, 2016
To: PLSO Board of Directors
From: Darrell W. Fuller
Re: Lobbyist report

The Oregon political/legislative world is reeling from the unexpected death of State Senator Alan Bates (D-Ashland). He apparently died of a heart attack after a day of fishing with his son. Senator Bates, a family practice physician, was truly one of the “good guys” at the Capitol and he will be missed by everyone—Democrats, Republicans, staffers—even the building custodians were his friends.

Campaign Update

Senator Bates’s untimely death adds an unexpected wrinkle to an already interesting political season. He was in the middle of a four-year term and was not campaigning. However, with the seat now vacant, a new Senator will be elected in November to complete the remaining two-years of his four-year term. Then, two years hence, the seat will be up for election again for a full four-year term. With no time for a Primary Election, the political parties (major and minor) will soon meet to select candidates who will have little time to organize a campaign.

Outside of this, most of the political focus is on the gross receipts ballot measure with businesses lining up against it and public employee unions backing its passage. The opposition campaign has already raised more than \$5 million with \$20 million as the goal.

Realistically, both the Senate and the House will remain in Democratic control after the elections unless something earth-shattering and unexpected occurs. Republicans in the House have some excellent opportunities to narrow the gap (currently 35-25). The Senate numbers may well stay the same.

At this point, I also expect all the state-wide races (Governor, Secretary of State, Treasurer and Attorney General) to remain in the hands of Democrats.

Legislative Update

Lawmakers will gather at the Capitol in Salem in September for interim meetings. It is at these meetings that lobbyists learn more about what legislators are planning for the full session next

year. This is an opportunity for legislators to float trial balloons. If I learn of anything that impacts Land Surveyors, I will let you know immediately. At the same time, I am scheduling meetings with both Senator Lee Beyer (D-Springfield) and Rep. Paul Holvey (D-Eugene) who chair the committees which will likely deal with the hydrography issue. I plan to update them – that the hydrographers apparently will not be advancing a bill to create a distinct registration process next year – and ascertain their appetite to deal with this issue over the objection of the hydrographers.

Beyond hydrography, the final product of the geospatial work group is the only other issue on my RADAR at this time. If you are aware of other issues boiling under the surface, please let me know.

Membership Meetings Update

I have started the process of meeting with the local chapters as I am invited. This is an initiative I suggested, if my memory serves, during the most recent convention. To date, I have attended the Willamette Chapter dinner in Salem and the Pioneer Chapter meeting in Oregon City. I hope the feedback has been positive from both dinners. I know I learned a lot.

On October 17th I will travel to southern Oregon to attend the Rogue River chapter dinner.

I am happy to attend more regional meetings. All I need is an invitation!

During those meetings I am encouraging PLS’s to “adopt” their local legislators and start building a relationship. I have asked people to invite their legislators to shadow them for a day, or part of day, so that the lawmakers will know more about what you do, the problems you face, and why PLS’s are vital to commerce. To date, I am not aware of anyone actually following through on these suggestions. But I remain hopeful and I am dedicated to the process of building our influence by building relationships at the local level.

As always, if you have any questions, comments, suggestions or concerns, please give me a call or shoot me an email. 📧

Eugene's First Corner Will Be Marked by Historic Plaque

By Christian Hill, *The Register-Guard*

A little noticed yet crucial piece of Eugene's history will be returning to its rightful place downtown.

City officials will hold a small ceremony in the shadow of the new Whole Foods grocery store to commemorate the placement of a decades-old plaque that marks the southeast corner of the original 1846 donation land claim of 640 acres by city founder Eugene Skinner and his wife, Mary.

The marked corner not only is an important part of the city's history, it's also a crucial tool for surveyors.

"All of the land development in downtown Eugene is based upon this corner," said Tim Fassbender, the city's surveyor for nearly 14 years. "This corner gives a sense of what Eugene Skinner was visualizing when he made his land claim."

Workers had removed the plaque last year to make way for the grocery store, which opens next week.

They formed a concrete inlet where the plaque will be installed in front of the store near the intersection of East Eighth Avenue and Mill Street.

Going back in history, it would take years for a surveyor to stake and record Skinner's land claim and mark its southeast corner with a wooden post, according to a video the city produced in celebration of Eugene's 150th birthday in 2012. The southern boundary of the claim stretched from Tyler and Mill streets, stretching north to the river.



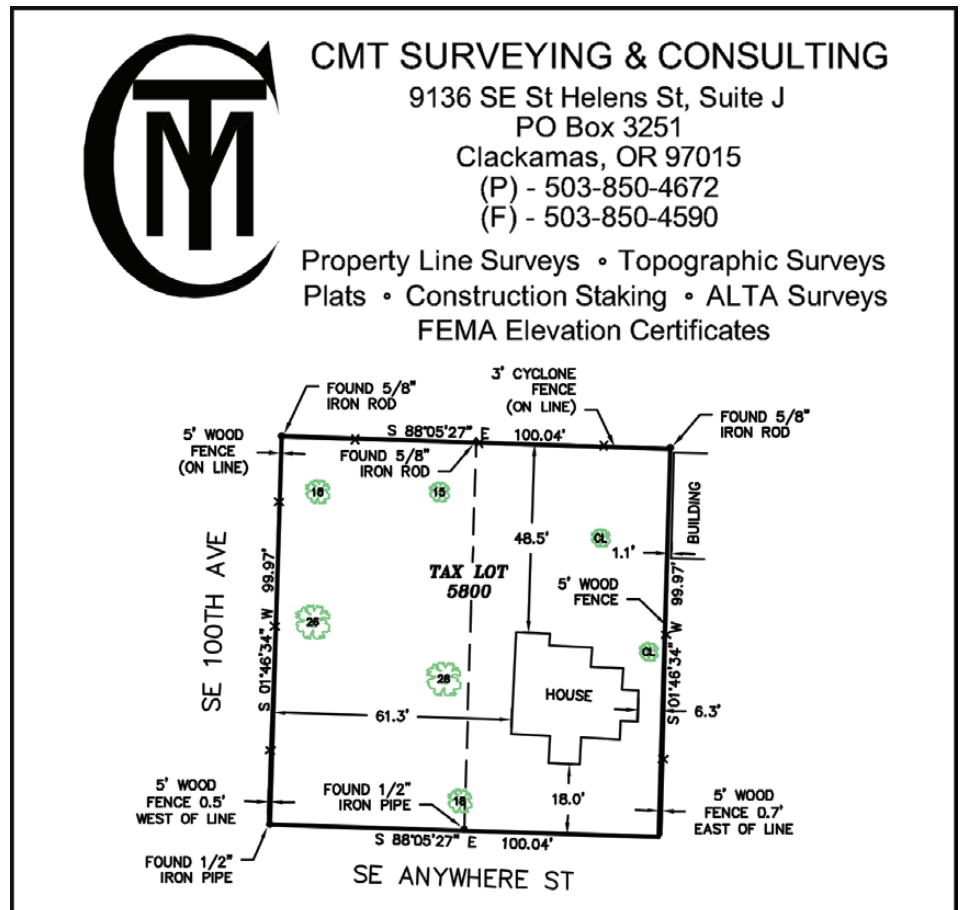
Fifteen years later, another surveyor marked the spot with a large stone set on pieces of charcoal, according to the video.

Other markers noted the boundaries of the land claim, but nearly all of them have been lost to history as Eugene incorporated and developed. Only the marker for the southeast corner remains on public property.

Fassbender said the first plaque was set at the location in 1959. The marker was displaced in the 1970s during construction of the Herfy's burger joint, he said. A second plaque was installed.

Later, crews placed four brass caps to ensure the southeast corner could be located if the marker were moved or damaged.

"We hate to see these things go away," Fassbender said. ❖



CMT SURVEYING & CONSULTING

9136 SE St Helens St, Suite J
 PO Box 3251
 Clackamas, OR 97015
 (P) - 503-850-4672
 (F) - 503-850-4590

Property Line Surveys • Topographic Surveys
 Plats • Construction Staking • ALTA Surveys
 FEMA Elevation Certificates

The Lost Surveyor

By Pat Gaylord, PLS

Q Can you name the location of this PLSO project completed a little more than 10 years ago?



A If you have been a member of PLSO for a while, you may recognize this spot as one of the major contributions of PLSO to the Oregon public. Located at Netul Landing in the Fort Clatsop National Historic Park, this brass disk was placed through the cooperation of PLSO, LSAW, the National Geodetic Survey and the National Park Service to commemorate the 200th anniversary of the Corps of Discovery.



A similar disk was placed on the Washington side of the Columbia at “Station Camp”, the site of the first camp established by Lewis and Clark prior to moving to Fort Clatsop.

Located on the Netul River, which is now known as the Lewis and Clark River, this canoe-landing site represents the end of the Lewis and Clark river trail. The landing is just south of historic Fort Clatsop and although it had many other uses through history, it is now preserved as a part of the park. The monument was dedicated on a rainy day in November of 2005 (see the Blast from the Past article on page 18) and was attended by a number of PLSO members and local dignitaries.

The disk and interpretive signage remains in good condition and continues to educate the public about a small piece of what we do. This was a project that all PLSO members can be proud of. While visiting this site you can also explore the 10 mile Fort to Sea Trail, which received many other PLSO survey contributions during this same time period.



Netul Landing Monument Dedication

By Paula Abbott, wife of a PLS and proud of it

THE NOVEMBER 12, 2005 SETTING AT NETUL LANDING FOR THE DEDICATION OF THE NOAA National Geodetic Survey Lewis and Clark Bicentennial Corps of Discovery II Monument was a perfect reminder of Captain Meriwether Lewis, Captain William Clark, and expedition members' winter in 1805/1806 in the Fort Clatsop area where they experienced in 106 days only 12 days without rain, and of those only six with sun. The dedication changed from an outdoor open air event to an undercover event due to so much rain. It was an encounter some of the speakers will probably not forget. The occasion was well attended including several dignitaries, and even hails from several people in canoes passing by on the river. The weather did not diminish the enthusiasm for what the dedication was all about. This was the dedication of the eighth and final monument of a series started from the east coast. The superintendent of the Lewis and Clark National and State Historical Parks, Chip Jenkins spoke of the hardships of Lewis and Clark's expedition and their remarkable scientific achievements, survey measurements that marked their travels, such as river mapping, and other accomplishments.

Tim Kent of Oregon Institute of Technology Geomatics Department, spoke of how the monument had been used for education programs. Sue Newstetter, PLSO Chair, mentioned the significance of measurement and in 1803 the use of latitude and longitude. She related how amazingly accurate Lewis and Clark's observations and measurements were, far better than expected. There was no greater accuracy until

the aerial surveys in the 1920s. President Jefferson had given them a commission regarding the future of the country. Clark remarked about the expedition members being all wet, cold, and everything rotting from the weather in the [Fort Clatsop] area. It is obvious they had their good days and bad days. They did not lose a single soul in the expedition. They did not lose each other in the side trips they made; they were surveyors.

Mary J. Hartel from the Bureau of Land Management said that President Jefferson was a visionary, initiating public land survey systems. He hoped others would follow in the footsteps of The Corps of Discovery and there would be map development and more. Oran Abbott says Hartel deserves an A+ for making her presentation in a downpour.

A speaker from NOAA mentioned the surveys of the coast, coastal geodetic surveys, and how accurate the locations were as noted by Lewis & Clark.

He mentioned that measurement is an exact science. He related that now we can use GPS to measure from Monticello (the home of President Jefferson) to here with accuracy to an inch and how measurements better our lives.



PLSO Members Tim Kent, Sue Newstetter and Mary Hartel offer their insights to a rain-soaked audience.

An NOAA speaker, wearing the dignified surveying attire of the era, made an excellent presentation regarding historical surveying in the region using authentic equipment. The speaker stated that there were good maps and information for the east coast, but the area between the east coast and the west coast was basically blank. There was some mapping of the coast here. We now have amazing technology and we have made great advancements.

According to Dick Bicklen of the BLM's general land office surveys, the surveys of 1856 GLO showed grid maps before settlement and squatters. The townships were set in squares six miles wide, like a checker board. The speaker said we were located in Township 8N, Range 10W. A fancy compass had degrees and half degrees and was used along with a Jacob Staff (which goes into the ground until measurement is stable), and a chain for measuring length. The men would line up, then sight and get straight lines. They would keep records of surveys and record them; measuring distances of one mile at a time. They used a precision measurement device, 66 feet long for measuring a mile, 7.92 inches in each link, measuring chains and links, with 100 links per chain. They would swear (by raising their hand) to do an accurate job. The chain was to be kept tight and level with the aid of a front and rear chainman. They also started using half chains (33 feet); it took 160 times to measure a mile! When on line, they would drop the pin at the end of the chain for the marker. After chaining pins, they would measure the next section by walking forward. They "stick, stuck" in the sequence staking process, measuring ten miles a day with a daily pay of \$1. They also established where the section corners were located. The axeman cut a clear line. Then they made a post from a tree, measured four feet of it, took off the branches, and used an axe to square it off by taking off the sides. They put the post in the ground, positioning it correctly. Directions were carved into the post with a scribing tool, which told the exact position of the section corner.

To find and purchase available land settlers would go to the land office. Purchasers would look at the land to see if there were trees to use for buildings and fencing. They also wanted to study the land next to their property. Some settlers would move the posts and claim the land. The land office knew the correct location of the property line. They would choose a mature tree, blaze it by the axeman, carve the information into the tree—which then became the recorded bearing tree for use in measurement—and write the details into the record. The posts would rot away quickly, while the bearing trees would be around for a long time. The type of tree and measurements were clearly noted. In 1856

Continues ▶



Lloyd Tolbert and Mary Hartel demonstrate chaining.



Tim Kent and Sue Newstetter peruse the exhibits.



President Thomas Jefferson (actor Bill Barker) is flanked by Lloyd Tolbert's daughters. Could they be future surveyors?



A beautiful wooden bridge crosses the slough.



The trail passes under Highway 101.



The trail ends at an expansive viewpoint deck overlooking the Pacific Ocean.

It's the Abbotts and Nick Miller, the photographer.

Continued ▶

there was a sawmill and houses in the township record, but no record of the Lewis and Clark Corps of Discovery 1805 Fort Clatsop. There was mention of rolling hills, good soil, swampy areas, prairie, the Clatsop Plain, good pastures, and trees and shrubs. There was a slough for transportation, and the river emptied into Young's Bay. President Jefferson asked Lewis and Clark to do some of the things surveyors are asked to do; record the land, soils, etc. The area was also examined for settlement and future potential; some of the same goals that still exist in surveying today.

Replicas of the dedicated monument were presented to Sue Newstetter and Chip Jenkins. Ken Wightman of David Evans & Associates, and a descendant of the original expedition party, worked very hard on the project and PLSO helped extensively with the project. Lloyd Tolbert attended the setting of the first monument in Washington, DC and was also present at Netul Landing.

With the dedication of The Corps of Discovery II Monument complete the next endeavor of the day was to hike the Fort to Sea Trail, which several PLSO people had helped to construct. The trail's grand opening was included in the bicentennial festivities of November 11-14, 2005. The trail is a congressionally approved project which starts in the Fort Clatsop area and ends approximately six-and-a-half miles later at Sunset Beach. Volunteer labor was used extensively in the building of the trail.

Recounting the hike of the Fort to Sea Trail, Oran Abbott related that the trail has a diversity of flora and fauna. It starts in a typical coastal forest, then follows an old logging road uphill for about a mile until it reaches a high point of about 350 feet. An overlook located at this point was not complete on this day. The trail then goes downhill into a swampy creek area. It follows the creek drainage for awhile then continues over a small hill. Next it follows some hedges near pastures and continues through a Highway 101 underpass. The trail winds past a historical church and several fields, over a floating bridge, uphill to a golf course, then turns and crosses over a large bridge. From there it goes into shore pine, and reaches the Sunset Beach parking lot. The trail continues another third of a mile to the Sunset Beach overlook where one can see expansive views of the Pacific Ocean.

Our day closed with a view of the ocean from the trail's end viewpoint deck in drizzling rain. Lewis and Clark also ended numerous of their winter days at Fort Clatsop in the rain. Unlike them, however, we chose to stay in Oregon, preferring the end of their journey, in the "Oregon Country: The New Eden" (as it was marketed to the settlers) to life back east. ▼

Making the Most of First Impressions

By Lydia Ramsey

Can you establish a lasting business relationship in just seven seconds? You can if you make a great first impression. Seven seconds is the average length of time you have to do it, and everyone knows that you won't get a second opportunity. A positive first impression can turn a chance encounter into a long term association.

Whether that initial meeting is face-to-face, over the phone or online, you do not have time to waste. It pays for you to understand how people make their first judgment and what you can do to be in control of the results.

1. Learn What People Use to Form Their First Opinion. When you meet someone face-to-face, 93% of how you are judged is based on nonverbal data—your appearance and your body language. Only 7% is influenced by the words that you speak. Whoever said that you can't judge a book by its cover failed to note that people do. When your initial encounter is over the phone, 70% of how you are perceived is based on your tone of voice and 30% on your words. Clearly, it's not what you say—it's the way that you say it.

2. Choose Your First Twelve Words Carefully. Although research shows that your words make up a mere 7% of what people think of you in a one-on-one encounter, don't leave what you say to chance. Express some form of thank you when you meet a potential connection. Perhaps it is "Thank you for taking your time to see me today" or "Thank you for joining me for lunch." People appreciate you when you appreciate them.

3. Use The Other Person's Name Immediately. There is no sweeter sound than that of our own name. When you use a person's name in conversation within your first twelve words and the first seven seconds, you are sending a message that you value the other person. Nothing gets other people's attention as effectively as calling them by name and giving them your full attention.

4. Pay Attention to Your Grooming. Others will. In fact, they will notice your hair and face first. Putting off that much-needed haircut or color job may cost you the relationship. Very few people want to do business with someone who is unkempt or whose hairstyle does not look professional. Don't let a bad hair day cost you the connection.

5. Keep Your Shoes in Mint Condition. People will look from your face to your feet. If your shoes aren't well maintained, others will question whether you pay attention to detail. Shoes should be polished as well as appropriate for the business environment. They may be the last thing you put on before you walk out the door, but shoes are often the first thing other people see.

6. Walk Fast. Studies show that people who walk 10-20% faster than others are viewed as important and energetic—just the kind of person others want to do business with. Pick up the pace and walk with purpose if you want to impress. You never know who may be watching.

7. Fine Tune Your Handshake. The first move you should make when meeting someone is to put out your hand. There isn't a businessperson anywhere who can't tell you that the good business handshake should be a firm one. Yet time and again people offer up a limp hand. You'll be assured of giving an impressive grip and getting off to a good start if you position your hand to make contact web-to-web with the other person's. Once you've connected, close your thumb over the back of the hand and give a slight squeeze. You'll have an impressive handshake and the beginning of a good business relationship.

8. Make Introductions with Style. It does matter whose name you say first and what words you use when making introductions in business. Because business etiquette is based on rank and hierarchy, you want to honor the senior or highest ranking person by saying his name first. When the client is present, he is always the most important person. Say the client's name first and introduce other people to the client. The correct words to use are "I'd like to introduce..." or "I'd like to introduce to you..." followed by the name of the other person.

9. Never Leave the Office Without Your Business Cards. Your business cards and how you handle them contribute to your total image. Have a good supply of them with you at all times since you never know when and where you will encounter a potential client. How unimpressive is it to ask for a person's card and hear the words, "Oh, I'm sorry. I think I just gave away my last one"? You get the feeling that this person has either already met everyone he wants to know or maybe didn't come prepared to do business.

Keep your cards in a card case or holder where they are protected from wear and tear. That way you will be able to find them without a lot of fumbling around, and they will always be in pristine condition.

10. Match Your Body Language to Your Verbal Message. A smile or pleasant expression tells people that you are glad to be with them. Eye contact says you are paying attention. Leaning in toward the other person engages you in the conversation. Use as many signals as you can to look interested and interesting.

In the business environment, you plan your every move with clients. You arrange for the appointment, you prepare for the meeting, you rehearse for the presentation, but in spite of your best efforts, potential contacts pop up in the most unexpected places and at the most bizarre times. For that reason, leave nothing to chance. Every time you walk out of your office, be ready to make a powerful first impression. ▽

Lydia Ramsey is an international business etiquette expert, speaker, trainer and author of numerous books, including the widely-acclaimed Manners That Sell—Adding The Polish That Builds Profits. She has been quoted or featured in The New York Times, The Wall Street Journal, Investors' Business Daily, Entrepreneur, Inc., Real Simple, Woman's Day Men's Health, Men's Fitness and Golf Digest.



The Astoria-Megler Bridge celebrates its 50th year anniversary this year.

Professional Listings

GEOTERRA

AERIAL MAPPING SERVICES

Lidar | Aerial Imagery | Orthophotography
Feature Data Collection | DTM | Contours | TIN | GIS

www.GeoTerra.us

Eugene: 541.343.8877

Portland: 503.239.6010

Place your professional listing here!

Nicole Gardner
503-445-2233
Nicole@llmpubs.com



1.800.721.1916
www.deainc.com



Surveying services for:

Energy
Land Development
Transportation
Water Resources

Bend, Oregon
Portland, Oregon
Salem, Oregon



HOFLAND SURVEY MONUMENTS

**Pipe Monuments • Concrete Markers • Custom
Stainless • Aluminum • Brass • Iron • Copper**

RICHARD HOFLAND
503.320.2685
hoflandsurvey@earthlink.net

P.O. BOX 515
145 W. MAIN STREET
YAMHILL, OR 97148

Outstanding Professionals ... Outstanding Service

2016 PLSO Board & Committee Chairs

CHAIR LEE MYERS

541-894-2264 | leemyers@oregontrail.net

CHAIR-ELECT DAVID WILLIAMS

541-389-9351 | davew@hwa-inc.org

PAST CHAIR JOHN THATCHER

503-780-0788 | johnsue648@gmail.com

EXECUTIVE SECRETARY AIMEE McAULIFFE

503-303-1472 | execdirector@plso.org
www.linkedin.com/in/amcauliffe

The State Board of Directors is made up of the PLSO Chair, Chair-Elect, Past Chair, and each of the Chapter Presidents and Presidents-elect.

PLSO OFFICE

PO Box 230548

Tigard, OR 97281

PHONE 503-303-1472

TOLL FREE 844-284-5496

FAX 503-303-1472

EMAIL office@plso.org

WEB www.plso.org

COMMITTEE CHAIRS

AWARDS

John Voorheis
johnvoorheis@grantspass.com

BYLAWS/CONSTITUTION

Brent Bacon, brent.bacon@eweb.org

CONFERENCE

Jered McGrath
mcgrathjered@hotmail.com

EDUCATIONAL GOALS & ACTIONS (EGAC)

Lee Spurgeon, lee@townshipsurveys.com

FINANCIALS

Gary Johnston, garyjohn@wildblue.net

GEOCACHE

Open Position

GPS USERS GROUP

Dave Wellman
dave@wellmansurveying.com

HISTORIAN

Paul Galli, gallip@co.cowlitz.wa.us

LEGISLATIVE

Dave Williams
davew@hwa-inc.org

MEMBERSHIP

Gary Anderson
ganderson@westlakeconsultants.com

NSPS, OREGON GOVERNOR

Bob Neathamer, bob@neathamer.com

OACES LIAISON

Scott Freshwaters
sfreshwaters@chamberscable.com

THE OREGON SURVEYOR

Greg Crites, gac@deainc.com

PROFESSIONAL PRACTICES

Bob Neathamer, bob@neathamer.com

SCHOLARSHIP

Ben Stacy, bstacy001@hotmail.com

STRATEGIC PLAN

Gary Johnston, garyjohn@wildblue.net

TRIG-STAR

Open Position

TWIST

Tim Kent, takent@comcast.net

WESTFED

John Thatcher, johnsue648@gmail.com

CHAPTER OFFICERS

Central 1	President	Brian Reeves	breeves@surveyingunlimited.com
	President-elect	JT Haglund	jtaylorhaglund@gmail.com
	Secretary/Treasurer	Kevin Samuel	kevin_r_samuel@yahoo.com
Mid-west 2	President	Donn Rowe	donnrowe@msn.com
	President-elect	Lloyd Tolbert	lloyd@tolbertassociates.com
	Secretary/Treasurer	Brent Bacon	brent.bacon@eweb.org
Pioneer 3	President	Mike Rademacher	miker@compass-landsurveyors.com
	President-elect	TBD	
	Secretary/Treasurer	Vincent Logan	vincent.logan@portofportland.com
Rogue River 4	President	John Voorheis	johnvoorheis@grantspass.com
	President-elect	Shawn Kampman	shawn@polarissurvey.com
	Secretary/Treasurer	Joseph Hall	halljh@jacksoncounty.org
South Central 5	President	Mason Marker	mason.marker@oit.edu
	President-elect	TBD	
	Secretary/Treasurer	Rhonda Costin	costin.rhonda@gmail.com
Southwest 6	President	John Minor	johnminor3537@gmail.com
	President-elect	Mark Hoye	mhoye@campbellglobal.com
	Secretary/Treasurer	Jerry Estabrook	estabrooklandsurveying@yahoo.com
Umpqua 7	President	Brent Knapp	knapp@ieengineering.com
	President-elect	Adam DeGroot	adam.degroot@btsengineering.com
	Secretary/Treasurer	Weston Addington	waddington@Lrtco.com
Willamette 8	President	Daren Cone	daren.l.cone@oregon.gov
	President-elect	Kyle Latimer	latimerky@gmail.com
	Secretary/Treasurer	Paul Kowalczyk	paulk@pdgnw.com
Blue Mountain 9	President	Rod Lewis	lewis.survey@frontier.com
	President-elect	TBD	
	Secretary/Treasurer	Lance King	lance@ck3llc.net

 Professional Land Surveyors of Oregon

 Professional Land Surveyors of Oregon

 @ORLandSurveyors

Affiliated with  

The Oregon Surveyor

PO Box 230548

Tigard, OR 97281

PRSRST STD
U.S. POSTAGE
PAID
Jefferson City, MO
PERMIT 210

 **TOPCON**

INTRODUCING

THE ELITE SURVEY SUITE



HIPER HR
ADVANCED CONNECTIVITY



FC-5000
COMPACT POWER



MAGNET 4
ALL ACCESS



GT SERIES
SUPERSONIC SPEED

MULTIPLE TECHNOLOGIES, ONE POWERFUL SOLUTION

Topcon's new combination of products & services make your jobs faster, easier, & more profitable.
Get the industry-leading solutions that can take your surveying to ELITE levels.



THEPPIGROUP.COM/SURVEY

Portland (800) 247-1927 | Seattle (800) 558-5368 | info@theppigroup.com