



THE NEVADA TRAVERSE

Journal of the Professional Land Surveyors of Nevada

Institutional Affiliate National Society of Professional Surveyors • Member Western Federation of Professional Surveyors

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and the Future of Land
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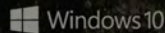
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The Nevada Traverse

This publication is issued quarterly by the **Nevada Association of Land Surveyors (NALS)** and is published as a service to the Land Surveying profession of the state of Nevada. *The Nevada Traverse* is an open forum for all Surveyors, with an editorial policy predicated on the objective of NALS and Bylaws, Article II, which reads:

"The purpose of the association shall be to promote the common good and welfare of its members in their activities in the profession of Land Surveying; to promote the common good and welfare of the public in terms of professional land surveying activities; to promote and maintain the highest possible standards of professional ethics and practice; to promote public awareness and trust in Professional Land Surveyors and their work.

This organization, in its activities and in its membership, shall be non-partisan, non-sectarian, and non-discriminatory."

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The Nevada Traverse is published quarterly by the Nevada Association of Land Surveyors and accepts advertising. Contact the editor for submittal specifications for advertisements. The rates per issue are as follows:

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The Editor's Corner



by Carl C. de Baca, PLS

2018 was a pretty good year. Granted a lot of old NALS stalwarts left this mortal coil for a better place, but other than those sad passings, we had it pretty well. The membership in NALS grew, and judging by both the average attendance at chapter meetings and the number of new contributors to these pages, participation grew as well. That is good news in these challenging times! At the recent state board meeting it was decided to expand the writing awards to include both the Article of the Year and the Editorial of the Year. I set about compiling the list of qualifying material and discovered that we had thirteen nominees in each category! Talk about participation...

We had a great conference this year, in partnership with Utah and Arizona and the Western Federation of Land Surveyors. NSPS held their spring meetings in conjunction with our conference so at one point there were close to

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a thousand surveyors all gathered in place! This year's get-together, in Reno will be a joint affair with CLSA, a longtime partner in producing great conferences. It should be a terrific and well-attended event. Make sure to sign up, get your PDH's and catch up with old acquaintances!

The Nevada Traverse closed on a high point, not only with a vigorous fourth edition but also with the magazine finally, after many years, coming very close to breaking even financially. This was a significant goal of NALS when I took up the reins as editor four years ago and while we have tried to maintain a solid, readable and totally Nevada-centric survey magazine, in the background we have been steadily cutting costs and trying to ramp up advertising support. We could still use some more business card postings and there is plenty of space, so don't be shy, step up and show your support of NALS and the Nevada Traverse by posting your card in our pages!

2019 looks to be a great year as well. We have an energetic and engaged officers' corps in the Southern Chapter, the Lahontan chapter and most specifically and emphatically, at the state level. If the recent Strategic Planning meeting is anything to go by, I predict that this is a year when NALS will get things done! Best of luck to new State President Jason Higgins, Southern Chapter President Gene Sawyer and Lahontan Chapter President Todd Enke!

Great Basin College will once again field a team in the National Student Competition. The topic this year is remote sensing and I hear the team has found a challenging site to map with a drone and that they will laser scan certain interesting features, then stitch it all together. Join me in wishing them the best of luck! If I have anything to say about it, (and I do), the Traverse will publish their paper after the competition is over. In the meantime, a good way to show your support for our team of competitors would be to contribute to the NALS Education Foundation to help defray their travel and lodging expenses as they go to Alexandria, Virginia in early April.

After that 40 page monster fourth edition of the Traverse in December, this more modest issue still focuses on Nevada writers, events and issues. Shane Trotter has written another fine editorial. Jim Mack has offered up a terrific tale taken from his younger days and we take a look at chapter Christmas parties, workshops and other events.

Happy reading!



About the Cover...



Robert Hoppe P.E. ties a flight cross on Adam Peak in the Osgood Mountain Range. 8500' above sea level. Looking east toward Kelly Creek. *Photo taken by Carl C.de Baca*



Earthquake capital of the U.S. Bridge on Parkfield-Coalinga Road straddles the San Andreas Fault. *Photo taken by Carl C.de Baca*

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Fill in your information and submit.

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Thank you!



The President's Message

by Jason Higgins, PLS



Welcome to 2019! It is indeed an honor and privilege to serve as your president. We are off to a roaring start to the year with much to accomplish. I want to thank all those that have served before me for their dedication and service. With their outstanding leadership our association would not be in the great standing we enjoy today.

I was able to escape Las Vegas to spend a few days in Reno in early January. Todd Enke, Lahontan Chapter President invited me to attend their chapter board and general membership meeting. I had the honor of swearing in their 2019 officers and directors and speaking to the members of the goals for the state board for the year. I always feel welcome at the Lahontan Chapter and look forward to seeing old friends and colleagues when I visit.

We held our first state board meeting the following day. This is the annual meeting of the association. The passing of the gavel is always difficult for an outgoing president. I thank Jerry Juarez, Immediate Past-President for his dedication and years of service to the association. Jerry's passion is the Trig-Star program and outreach. We look for to Jerry continuing in this role for the association. We were able to get our committee chairs in place at the last meeting of 2018, so all reports were submitted with many committees already very active. Our financials are in good shape, thanks to proper planning by past boards that guided the association through and out of the recession.

I was able to spend some extra time in the area as I had business at the State Engineer's office the following morning. I had lunch with Carl C. deBaca, editor of the Nevada Traverse to discuss issues and spend time with Marty Crook at Monsen Engineering to brainstorm ideas for the scholarship auction. Finally, I attended a banquet on Friday evening for the International Professional Hunter's Association, where a close friend was honored with a lifetime award.

Back in Las Vegas, I am occupied planning the upcoming Strategic Planning Summit, which will be held in early February, back in Reno. Additionally, I am busy passing the leadership of the legislative committee to Robert Carrington. Robert has served as Chapter chair for this committee in the past as well as on the state committee. With a busy legislative session starting next month, this committee is in great hands.

Numerous Bill Draft Requests (BDR's) have been posted that may have an effect on our profession. As of this writing, we are tracking 60, of which four (4) are now Assembly Bills. The Nevada Board of Professional Engineers and Land Surveyors has proposed draft language on numerous topics (BDR 609). You can find more information on the board's website, <http://www.nvboe.org/> or on the Nevada State Legislative website <https://www.leg.state.nv.us/>.

Finally, I would encourage anyone who is interested, to serve on a committee, volunteer for an event, submit an article to the Nevada Traverse or share your thoughts and opinions. We are all an association of volunteers.

Respectfully Submitted,
Jason Higgins, PLS, WRS ⊗

Hickerson Final Point Update



Construction of Barry Hickerson's final monument was completed on December 28, 2018 by Justin Moore and Greg Bigby. The monument is located at Lillard Park in Sparks, next to the flag poles. Purchase of the final monument has been placed and should arrive late Winter 2019. Lahontan Chapter is planning a ceremony in Spring of 2019. More info to come regarding the ceremony.





Stepovak Bay

By: Jim Mack, PLS

In the Fall of 1979, I found myself arriving by train in Klamath Falls, Oregon. Having just recently achieved an Associate Degree in Civil Engineering in the very scenic town of Astoria, beautifully situated on the Columbia River at the confluence of Youngs River and the Lewis & Clark River. I was transferring to a more major university. My recent summer job in Hillsboro, Oregon with the Soil Conservation Service as a Student Trainee was over, and because of the recent loss of my Volkswagen bug, I was stepping off a train with my belongings in a backpack and a guitar in hand to begin my 3rd year toward a BS degree at Oregon Institute of Technology.

Upon completing two semesters, and needing some money, I had heard of a program that was offered to upperclassmen at OIT to work with the BLM on a Cooperative Education program. So I applied and was hired at a GS-4 level to spend the upcoming Spring and Summer seasons surveying in Alaska.



I stepped off the plane in Anchorage on April 1, 1980. The various Co-op hires all assembled at the State Office on C Street downtown, got processed throughout the day, booked motel rooms, and awaited departures the next day to head to the different camp assignments. We were to head to Sand Point, an island actually, located generally at the end of the Alaskan Peninsula and about 650 miles SW of Anchorage. Interestingly, during the night the Anchorage area experienced one of the most violent winds in years, as it became known as the April Fools' Day Storm. So after a night out at a local bar, getting to know the other students heading out to the same camp, we arrived at the airport only to witness many small craft flipped over. The wind was still howling which made for an interesting rock-and-roll climb into sky.

Upon finally arriving in Sand Point, we began construction of the Survey camp. Now, government camps in Alaska are well-designed and able to handle extreme weather conditions. Essentially, there is a wooden, plywood floor with a metal fixture that you attach to the perimeter, which received aluminum tubing compressed in an arc over the flooring, making a Quonset-shaped design. Then a strong, double-walled fabric is draped over the tubing and attached to the flooring. With a small fan pumping a low pressure and constant flow of air into the void, it acted as a well-insulated structure. We also installed oil stoves inside which over the coming storms that we were to experience, kept us warm, dry and comfortable.

The surveys that we were to be engaged with involved Original Surveys over large tracts of land. Special to Alaska, the BLM was only required to set monumentation every 2 miles, submitting a plat that reflected courses and distances for each mile or for each Section of land. So the camp that we set up in Sand Point was to use an Inertial Navigation system, a fairly recent development, outfitted into the back seat of a Hughes 500D helicopter. The precisions for surveys with the BLM was at that time only 1:1280, so the Inertial system was able to determine positions within those tolerances so long as they set down every so often and "Zero Updated". Any residual "drift" that naturally occurs with this system gets "zeroed out" when the operator tells it that it's not moving anymore and re-fixes its position. I, however, was not to be assigned with the Inertial crew, but rather transferred over to another camp to set up about 37 miles away, in Stepovak Bay.



The site selected for our camp was at the end of the bay, at the end of a long gravel runway that was constructed by a mining outfit years prior. Stepovak Bay itself is situated along the southern coastline of the Peninsula, with a volcanic mountain range stretching along the spine and the Bearing Sea located on the north side. It gets its name from early explorers of Russian origin which lends many Russian names to many of the towns and volcanos in that area of southwestern Alaska. The pieces for our camp arrived by barge **CONTINUED ON NEXT PAGE ►**

Stepovak Bay... continued from previous page

and were already unloaded by those of the crew there. Our task was to build it as we had done in Sand Point, placing it just on the lee-ward side of a high sand berm separating the camp from the water's edge. We constructed 8 of the living quarters and 1 large kitchen Quonset and constructed a plywood shed to house the generator, water heater and various supplies. We also constructed a plywood outhouse that we designed as a 2-seater (I'm not sure why as there would only be one person in there at a time) and a sauna utilizing an empty 50-gallon drum as the heating source, covered with rock and fueled by either kerosene or Jet-B fuel that we had in abundance. These structures had to be tied down firmly with rebar and nylon cord in order to withstand some of the many violent storms that occurred way too often. We also set up 2 large fuel bladders where we stored the necessary Jet-B fuel for the helicopters that we utilized for the surveys.

For the actual surveys that we were to conduct there were 2 and sometimes 3 helicopters that were contracted by the BLM, with the pilots and crew staying with us in "Step in Crap" Bay... that's the colloquialism that we would use with each other. Each of the Quonsets would house 4 people, so the pilots would occupy one or two, an office another, and the remainder were for the Surveyors. The office consisted of a short-wave radio that we could not only communicate with the State Office in Anchorage, but could pick up Armed Forces Radio to keep abreast of the world outside our camp. In fact, on May 18th of that year, we learned of the Mt. St. Helens eruption on Armed Forces Radio. We also had a geodesist that worked with a computer to calculate protracted positions for each of the Section Corners that, ultimately, we were to set. But, on to the surveys...



The helicopters that we employed were Bell Jet Ranger 204s, which were equipped with a hover site mirror beneath the pilot's feet, that could plumb the crosshairs of the mirror over a brightly colored bean bag on the ground, and that had a signal light attached directly over the same plumb line above the helicopter. Our first task was to set control points on various mountain peaks that were inter-visible with each other, tie into the U.S.C.&G.S. network along the coastline, and determine coordinates for each control point. These were entered into a database that the geodesist would use in order to pre-calculate positions for the Section corners. These were long-distance sights where we utilized E-tapes that used microwaves at different frequencies in order to measure distances. So part of the process was not only turning several sets of angles, but also taking temperature, pressure, wet-bulb & dry-bulb

measurements during the distance measuring in a procedure to eliminate atmospheric conditions which affected the results.

After the positions for Section corners were determined, the geodesist would give us sheets that would provide us with angles to employ, back-sighting each other on two inter-visible control points, in order to "dial" in the angles to guide a hovering helicopter to each pre-determined position. There was an Auto-tape installed in the helicopter which would measure the distances to each of our control points from the "plumb" point on the helicopter, giving a continuous readout to the operator in the helicopter. He also had predetermined distances to each control station, so as we directed the helicopter to intersect our crosshairs from both stations, the operator was directing the pilot to match each of the distances needed. This was named the "ABC" method of triangulation, or "Airborne Control". We used Wild T-2s for theodolites, and I have to tell you, having an inverted image on my instrument made for an interesting dance trying to guide the hovering helicopter into the crosshairs. Anyway, when the helicopter got reasonably close, they would drop a bean bag and a whole bunch of bright-colored flagging to the ground – the flagging to give us a fighting chance to find the bean bag at a later time. The helicopter pilot would pull-off the position to fly around a bit to cool the engines after having been in a hover for a while, then return for a more-controlled hover and measurements to the bean bag. We would then turn a series of angles while the operator in the helicopter recorded the distances to each control point. The data was brought back to camp at the end of day and the Geodesist would then reduce the data. He would also provide us a direction and distance to the actual pre-calculated position for the Section corner, whereupon at a later time, we would return to use a compass and chain to measure from the bean bag and set the monument on the ground. This was fine until we discovered late in the season that the hover-site was not exactly "plumb". We did some tests in our base camp to discover this. However, because of the loose precisions required, the "office people" felt that it wasn't out enough to put us out of tolerances. This was one of the many drawbacks to this type of procedure. As well, the pilots had a difficult time keeping a good, steady hover when winds were strong.

Life in a camp in Alaska was new to me and involved new hurdles, two of which were the bears and the bugs. I have never encountered such large numbers and sizes of mosquitos in my life! They could bring you to tears and there were times that we had the pilot keep the rotors turning slowly so that we could find sanctuary beneath them in the moving air. We had a couple of close calls with Grizzlies as well. Our camp was close by a river emptying into Stepovak Bay, and the bears would often come down to this area to fish for salmon. We also had trash that we hauled daily across the elevated gravel runway and constructed a dump where we would burn our trash. That didn't stop the "Griz" from rooting around in the hot ashes and tearing open leftover cans and remains in order to eat something different. I even had one charge me one morning as I was heading to the kitchen structure for breakfast. I didn't see him at first as he lowered his head and bolted in my direction from the edge of our encampment. I stopped, he stopped, then spun around to head away. My heart was in my throat! Our crew chief, Stan King, had brought a Huskie dog with him to camp, and Devil would run circles around any bear that wandered into the encampment, barking and in the dark, never getting caught. This would signal when to come out of our tents in order to use the latrine at night, but it wasn't foolproof. I don't know which bothered me more – the bugs

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Stepovak Bay.... continued from previous page

or the bears! There was also the weather. We spent days not being able to work because of it. Of course many of us got pretty good as Pinochle and eating. We had our own cook (a gal that I actually worked with 10 years prior at a fast food establishment in La Mesa, California), a deep freezer, stove and oven, and she made sure we had a packed lunch whenever we were able to go out and work. Once, when the weather set in on us for days, and we didn't get our scheduled delivery of food by plane, we had to catch our meals – salmon. We then ate salmon in several different forms - morning, noon and night.

I also had an experience in the early Spring when snow was still on the ground, and I was turning angles to a hovering helicopter from a mountain peak, and the cold wind was blowing hard into my face, the tears causing me difficulty to see, that I started becoming hypothermic. I didn't recognize it was happening – my partner did. It wasn't even freezing, but the cold wind in my face was dropping my body temperature, and I was having trouble communicating to the pilot in the helicopter. I began getting frustrated and wasn't even shivering. But, my partner on the peak saw what was happening and pulled me over to the lee-ward side of the peak where we huddled out of the wind and he fed me chocolate bars. The pilot had to come pull me off the mountain and back to camp where I recovered in my sleeping bag. Strange how that can happen, but it's important that you and your fellow Surveyors recognize the signs.



Another aspect of helicopter use is the coordination that the Surveyor had to have with the pilot. We had to follow certain rules and always watch out for each other. We assisted the pilot when he was picking us up by holding out flagging for him to see the direction of the wind. We had to stay low beneath the blades of the rotors and be cognizant of equipment that we brought with us – digging bars and shovels or tripods – that could easily be forgotten and tipped vertically in a manner to catch a blade. After working together with these pilots, they gained enough confidence in our abilities to conduct a power landing, where he would pin the helicopter's footing against a sharp peak in a place where he couldn't land, and we would gently lower ourselves from the strut and collect our gear, all the while as the helicopter was under power in a controlled hover against

the peak. And, we had a couple of close calls when we would be either landing or taking off and the direction of the wind would suddenly change. It never got boring.

We also had the opportunity to conduct conventional ground surveys, most notably where we ran control out to an island and had to calculate witness corner positions along Section lines that intersected cliffs or bodies of water. On one occasion, we used an E-tape to traverse out to Mitrofanina Island which was inhabited by thousands of tufted puffins. As we approached a landing spot on the island in the helicopter, thousands of these awkward birds would struggle to avoid collisions with us – something that we didn't want either. And, as we walked along steep-sloped, grassy edges of the island overlooking the ocean, these colorful birds would startle us by rushing out of hidden burrows, flinging themselves over the edge and fighting for flight. There was a control point on a high outcrop on this island named "Parrot" by the U.S.C.&G.S. that we planned to use. But, in tying this point to other triangulation stations located on the mainland, we determined that the position for "Parrot" was about 5-6 feet different from its published position! We had a tight traverse that closed well, so we submitted a new position for it, speculating that this monument must have moved this much during the 1964 Alaskan earthquake or some other of the many earthquakes that frequent the region.

As the season ended and our project completed, we disassembled the camp and loaded onto an Argosy cargo plane, the kind of 4-propeller craft that opened in both the front and rear for loading and unloading. We also had a twin-engine plane chartered to carry us away from Stepovak Bay and back into civilization. I can still feel the joy of completing a tour as a field crew member of a major survey project in one of my first survey experiences, putting headphones on and listening to Kenny Rogers, with a little money in the bank to re-enter academic life, as we lifted into the sky and looked out the window to where we had spent many times navigating. It was the same view, but different...



The "ABC" method of Surveys, I am told, is no longer utilized for large area surveys in Alaska. Inertial Navigation, although refined, is not used either – both **CONTINUED ON PAGE 30 ►**

Western Federation of Professional Surveyors

WFPS

526 South E Street - Santa Rosa, CA 95404
Phone: (707) 578-1130 Fax: (707) 578-4406
admin@wfps.org

October 15, 2018

Dear WestFed Survey Community:

Wildfire ravaged the Western United States in the 2017 and 2018. Devastation impacted many, including some in the land surveying profession. Along with the terrible destruction came those that were willing to help. Lots of individuals reached into their pockets to give to those in need, surveyors were no exception.

The NSPS Foundation established a disaster relief fund which has been a valuable resource to help support those in the survey community. Recent natural disasters across the Country have created a need for more private assistance. On May 18, 2018 the Western Federation of Professional Surveyors joined efforts with the NSPS Foundation and established the Western State Scholarship and Relief Fund. This fund will benefit from the NSPS Foundations assets and help grow the money faster to support those in need.

In addition, to providing disaster relief assistance to surveyors in the western states, this fund will also be used to fund scholarships for students studying land surveying in the western states. WFPS has been providing scholarships for more than three decades. By moving the scholarship funds to the NSPS Foundation we are able to earn a greater return on investment and the tax benefits afforded a 501(c)(3).

Attached are applications for the relief fund and the scholarship. If you would like to contribute to the Western State Scholarship and Relief Fund, please send a check to WFPS Scholarship and Relief fund 526 South E Street, Santa Rosa, CA 95404.

Sincerely,



Matt Gingerich, PLS
WFPS Chair

About WFPS

The Western Federation of Professional Surveyors (WFPS) was formed in 1979. The Board of Directors includes two delegates from each of the 13 western states. WFPS serves as a regional voice for Land Surveyors and meets quarterly to discuss practice issues affecting western state surveyors. For more information about WFPS and the state associations, visit WFPS.org

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The Four-Year Degree and the Future of Land Surveying

by Shane Trotter, PLS

There has been a decline in the number of incoming Professional Land Surveyors in Nevada since the revision of NRS 625.270 in 2011. This is a well-established fact. This revision to NRS, in effect for eight years now, requires an applicant to have a 4-year degree in land surveying curriculum in order to be considered for licensure. One can certainly look at the decline in new licensees since the law was revised and see a correlation. However, there are many reasons for the decline in numbers including a severe economic slowdown starting in 2008 that eliminated the jobs of many potential future surveyors, and an industry-wide emphasis in one-person field crews that broke the mentoring and advancement chain that we have always previously relied upon for grooming new surveyors. Regardless, there are many benefits to the change in the law which outweigh a perceived decline in the amount of incoming surveyor, and there are other solutions to recruiting future land surveyors besides repealing the law. In order to secure our profession and ensure incoming applicants it will take more work from the land surveying community of Nevada rather than a simple removal of a degree requirement.

Requiring a 4-year degree as well as experience to become a professional land surveyor is very beneficial to the public. Without the degree requirement surveying would revert back to something comparable to a trade rather than a true profession. Surveying requires the academics due to the necessary understanding of mathematics, history and science behind land surveying. Obtaining a degree gives future land surveyors a broader understanding of surveying as a whole. Without a degree, a surveyor will only obtain a localized knowledge and understanding of surveying. For example a degreed surveyor will get a taste of the PLSS, Legal Descriptions, Surveying Principles, Land Development, Lot and Block Surveying, Instrumentation, Least Squares Adjustments, Construction Surveying, Case Law Research and Mineral Surveying to name a few. A non-degreed surveyor may only have an understanding of a small portion of the pie where their experience is gained, rather than surveying as a whole. The experience that a non-degreed surveyor has will be invaluable, but this experience will also be obtained over time by the degreed land surveyor.

It is not the purpose of this article to debate whether a surveyor with experience only is better than a surveyor with a degree only, but rather to show that a surveyor with a degree and experience will be more robust which leads to a great benefit to the public. It has been my experience that some areas of land surveying can be missed when a surveyor is working from experience only. One of the first classes that I took when obtaining my degree

was SUR281. A small piece of knowledge that I gained from this class was how to calibrate an optical plummet on a tribrach. After obtaining this knowledge I proceeded to check all of the optical plummets at the field office. When teaching the crewman how to use the “ring” tool, to calibrate the tribrachs, I found out that this technique was not known by the chief, who was a licensed land surveyor without a degree. This small minor calibration skill, learned at school, led to saving hundreds of dollars on unnecessary purchases of tribrachs. A well-rounded understanding of GPS, including RTK is another skill that can be obtained at school. A surveyor who does not have a degree, may know how to collect and process GPS data, but without a good understanding of the mathematics and principals behind GPS costly errors are possible. I once questioned a licensed surveyor as to why they were using a “HERE” coordinate for their survey, rather than starting on the network coordinates they were later calibrating to. The response led to a long debate in which I argued that the vector collected between a base and a rover does not change based on the location/coordinate given to the base. A surveyor may never have to research case law for boundary disputes and riparian issues, but as they progress in their field it may become necessary. This skill will already be obtained and used several times before a degreed surveyor has graduated.

In order to gain more future land surveyors there must be a change made. This change does not have to come from a change in the rules and requirements, it can come from us as professionals. This can be done by going in to schools and telling students about land surveying. As discussed in my previous *Traverse* article, “Recruiting Future Land Surveyors”, most Nevada students do not know what land surveying is, much less consider it as a future profession. Recently I went to Carson Middle School to give a presentation to 3 sets of students. Each set consisted of roughly 90 kids ranging from 6th-8th grade. Out of the approximate 270 kids, less than 1 percent of them knew what land surveying was. This is common throughout most Nevada students. However, after presenting land surveying as a fun and exciting career, 10 to 20 percent of the children said they would consider it as a career path.

There is still time for Land Surveyors to change our future, but as a community, we are not acting with purpose. One way that we could change this is by creating an incentive for the land surveyors in Nevada. Changing NAC 625.470, the continuing education requirements, to allow for credit for land surveying presentations and outreach is one way that we can get our surveyors to help out. In the same way that surveyors are incentivized to teach a course or seminar we could do the same with surveying outreach. Furthermore, if every surveyor were required to complete 2 hours of outreach, every other year, in order to renew their license, this would generate much more possibilities for future land surveyors.

It is my opinion that removing the degree requirement would only have a negative impact on our profession. In short. the solution to our problem is more not less.

Shane Trotter is graduate of the Bachelors of applied Science in Land Surveying Geomatics at Great Basin College.



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This granite column once marked the eastern terminus of a trigonometric base line originally measured in the summer of 1872 by the English-born surveyor George Davidson. Working for the U.S. Coast Survey, Davidson established numerous survey stations in the area north and west of this site to determine the 120th Meridian, the boundary between Nevada and California.

From Verdi East Base the surveyors had a connection with the railroad telegraph which provided accurate time for determination of longitude. The original 1872 instrument pier was later destroyed and this column was set in its place in 1892. Davidson's work provided the basis for the resurvey of the state line which began later in 1872 by A. W. von Schmidt.

Nevada Association of Land Surveyors/California Land Surveyors Association
In Memory of the Honorable James H. Thompson and Francois (Bud) Uzes, PLS
2011
Plaque Produced by Berntsen International Incorporated

Southern Chapter Christmas Party



The Southern Chapter held its Christmas Party on December 7th at the Suncoast Hotel in Las Vegas. It was a wonderful evening with record numbers in attendance this year! There was great food and excellent magical and comic relief performed by our special guest, Mr. Greg Dow. Greg is an outstanding performer and was sure to engage the audience and involve them in the show. It will be difficult to top him when planning next year's entertainment! There were numerous raffle prizes afforded us by our sponsors and donors ranging from room and golf packages, to spa certificates at various hotels, as well as some excellent dining certificates to some of the finest restaurants in town. Everyone received a bottle of wine or cider with a box of chocolates to take home as a Christmas gift for all to enjoy. It was truly an evening to remember. We give special thanks to our generous sponsors who continue to support us in our endeavors and give back to the community of members of the Southern Chapter. Thank you to: Monsen Engineering, VTN NV, Aerotech Mapping, Diamondback Land Surveying, Tri-Core



Surveying, Wallace Morris Kline Surveying, American Mapping Consultants, Kuker-Rankin, Poggemeyer Design Group. Thanks are also owed to some of our friendly local corporate sponsors;

Flightlinez Bootleg Canyon, Casablanca Resort, J.W. Marriott Hotel and Spa, Bears' Best Golf Club, Suncoast Hotel.

Out-going President, Jeff Miller gave a humble and appreciative speech wherein he praised and recognized everyone who helped with the success of his year as President. He also welcomed the incoming members of the Board and thanked them for volunteering their time to the Association. I presented Jeff with two plaques, one to acknowledge his sense of humor and his gusto; the other to recognize his dedication to the profession and service to the Association. This is also the last year Russ Wonders will remain on the Board. He has been a member of the Board of Directors for many years having served as Director and then on to Treasurer, a position he has dutifully served for 4 years. He has been consistently relied upon over the many years to help with all of our picnics and Christmas Parties, and much more. He too was presented with a plaque recognizing his many years of service to the Southern Chapter and to the profession. I am thankful to have had the opportunity to work with and get to know these two gentlemen over the course of the past several years. They are outstanding individuals and I will miss working with them.

The Christmas Party has become the traditional time when our new board members recite the oath and are sworn in. In years past this act was carried out by a member of State Board of Professional Engineers and Land Surveyors however, in honoring our Past Presidents of the Southern Chapter; Mr. Tom Hellums (SNALS President 2005) was invited to join us as Master of Ceremony and administer the Oath of Office.

The 2019 Board of Directors was sworn in and they are as



follows:

Gene Sawyer, President; Nick Ariotti, President Elect; Frank Wittie, Treasurer; Russ Jamison, Secretary; and will also include our returning and new Directors; Craig Morris, Trent Keenan, Russ Hyatt, Randy Mrowicki, Verland Pierson (and though he may not know it yet, Honorary Director, Sean Corkill).

I wish to extend my thanks to all who've contributed to our work in helping bring awareness of our profession to the students of southern Nevada, and for being a part of the Nevada Association of Land Surveyors.

CONTINUED ON PAGE 30 ►

A Trip to Parkfield

By Carl C. de Baca



Recently Laurie and I found ourselves driving through the central valley on the way to Southern California and after a late start from Reno, ended up spending the night in Visalia. I must point out that Visalia might be the worst smelling place in the western hemisphere. I'm willing to consider that the odor might have something to do with a huge low-pressure ridge holding steady just beyond the Pacific coast creating a bad inversion over this part of the valley. But maybe not, maybe it always stinks there.

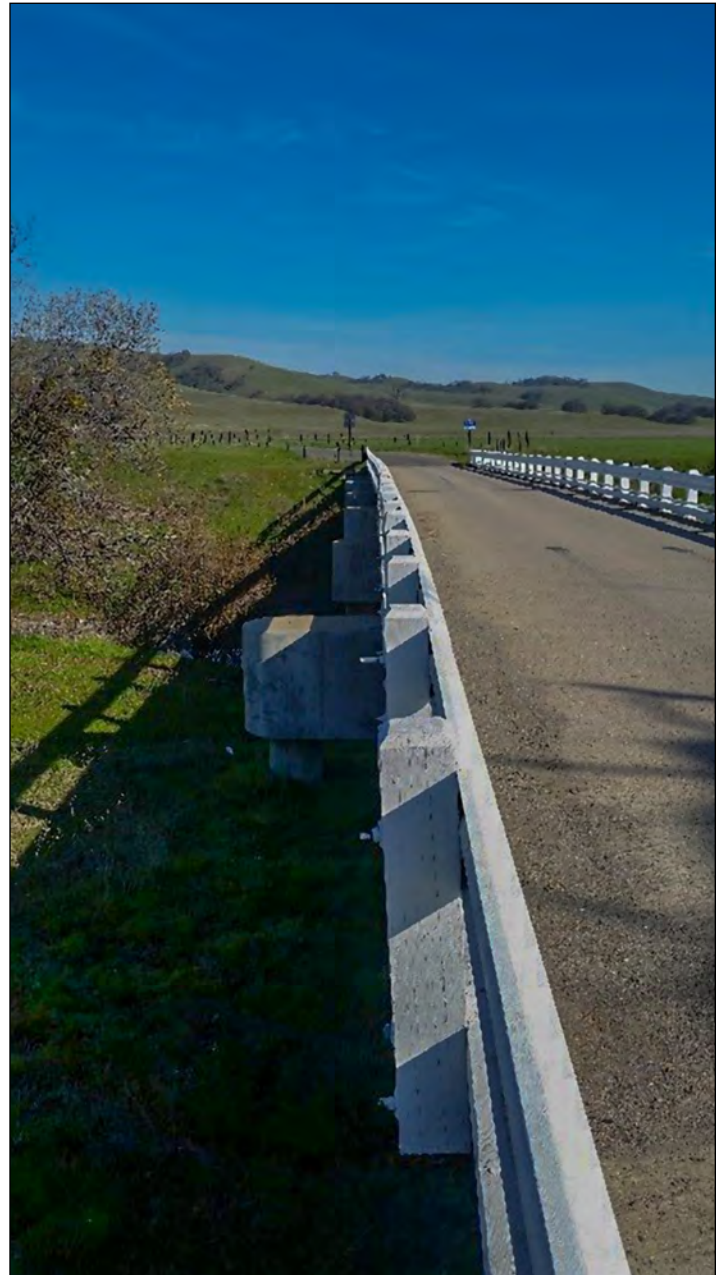
When we got up in the morning, ready to resume the drive south, the visibility was zero. I'm not exaggerating, the local news said visibility for 50 miles in all directions was less than an eighth of a mile. There was no way we were getting on the freeway with a bunch of California drivers in fog that thick. They do not slow down for such trifles and every year there is a news story about a forty-seven car pileup because the lead car was going too slowly for all those behind. So – what to do instead?

Last year I read a book by Simon Winchester called *A Crack In The Edge Of The World*, a look at the 1906 San Francisco earthquake. Winchester spent much of the book immersing the reader in plate tectonics, volcanology and U.S. history of earthquakes. I recalled that Winchester wrote about a small community in the central valley called Parkfield, which, due to its location, is one of the most geologically active places in the U.S.

Parkfield is situated exactly on the San Andreas Fault. Going back to 1857, Parkfield has experienced a magnitude 6 or greater earthquake about every 22 years, like clockwork. While the 1993 expected tremor did not materialize until 2004, when it did happen, it was a 6.0. The town and surrounding area is the most closely observed earthquake zone in the world. To borrow from Wikipedia: “In 2004, work began just north of Parkfield on the San Andreas Fault Observatory at Depth (SAFOD). The goal of SAFOD is to drill a hole nearly 2.5 miles (4 kilometers) into the Earth's crust, across the San Andreas Fault. The specific target of the

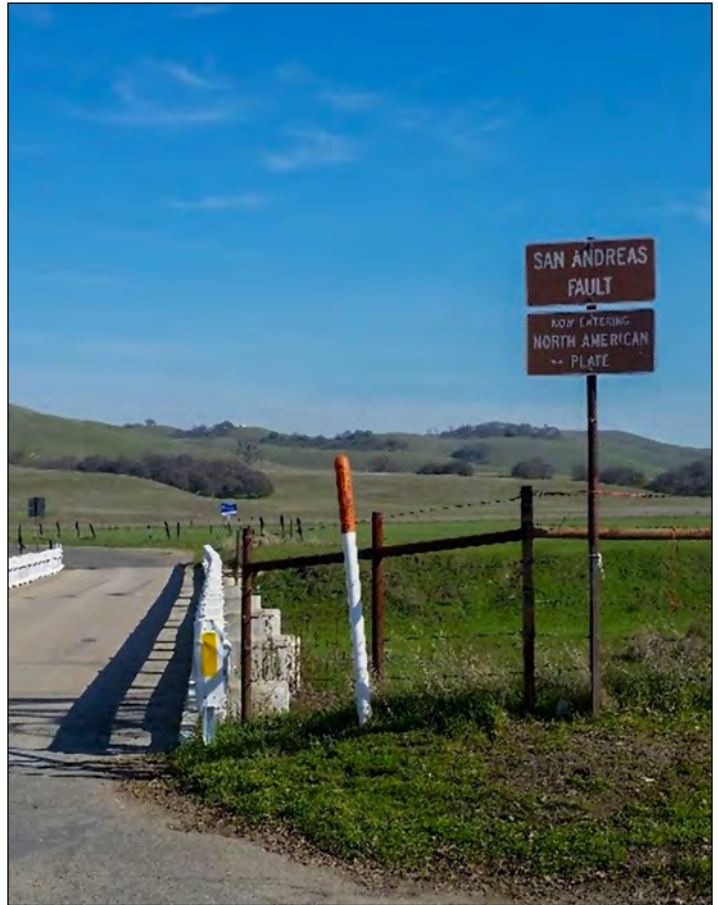
probe was a patch of fault known to generate sequences of repeating micro-earthquakes of around magnitude 1.0. The drilling was completed in the midyear of 2005, and an array of sensors was installed to capture and record earthquakes that happen near this area.”

As luck would have it, Parkfield was a short 2 hour detour on farm roads, from Visalia, keeping us on a low-traffic trajectory while the fog slowly burned off. So what did we find when we got there? A quaint restaurant in ranching country that serves an above-average steak sandwich and this:



The bridge is bent. The closest footings, being on the Pacific Plate, are no longer in line with the others which are on the North American Plate. The stream bed follows the fault line for some distance. ⊗

CONTINUED ON NEXT PAGE ►



Water tank photo By Linda Tanner from Los Osos & Creston, California, U.S.A. – taken from Wikipedia



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Natural disasters can strike just about anywhere. While here in Nevada we are blessedly immune to the ravages of hurricanes like Michael, that struck the South in 2018 or Harvey and Maria who wreaked havoc in 2017, we still had the worst fire year in state history this year. Even so it was nothing like California where the Mendocino Complex and Carr fires destroyed the homes and livelihoods of thousands of victims. Some of whom were surveyors, like yourself.



The National Society of Professional Surveyors Foundation, through its Disaster Relief Fund, has helped dozens of surveyors whose homes were destroyed by disasters such as these. But we do this from a very modest base and we could use your help. By helping us with a donation, you are helping surveyors across the nation as surveyors elsewhere may one day help you! Please give today.



Go to the NSPS website /www.nspss.us.com for a link to the donation page, or

Contact NSPS Director for Nevada and NSPS Foundation Trustee Carl C.de Baca PLS at Alidade.nv@sbcglobal.net for information on how to donate. And Thank you!



NALS Board of Directors Meeting

January 10, 2019 • AGC Building • 5400 Mill Street • Reno, NV



MINUTES

CALL TO ORDER

The meeting was called to order at 10:20 AM.

ROLL CALL

Jason Higgins, President
Greg Phillips, President-Elect
Justin Moore, Secretary
Robert Carrington, Treasurer
Jerry Juarez, Immediate Past President
Crissy Willson, Executive Director

Nick Ariotti, Director
Todd Enke, Director
Bill Kruger, Director
Gene Sawyer, Director (via conference call)

Guests:

Carl C.deBaca, Past President, Traverse Editor
Matt Gingerich, Past President
Trent Keenan, Past President

AGENDA REVISIONS AND ADOPTION

MOVED by Robert Carrington and **SECONDED** to approve the agenda. **MOTION CARRIED.**

INSTALLATION

Past President Trent Keenan installed the 2019 Board of Directors and administered the oath of office.

PRESIDENT'S REPORT

Report included in agenda.

President Jason Higgins discussed the goals for the year which include holding the strategic planning session scheduled for February and updating the adopted guidelines.

President Jason Higgins appointed and the Board approved Todd Enke as Chair of the Advanced Technology Committee.

During the last quarter the Executive Committee took action to authorize the Executive Director to sign contracts on behalf of the association.

MOVED by Justin Moore and **SECONDED** to ratify the action of the Executive Committee authorizing the Executive Director to sign contracts on behalf of the association. **MOTION CARRIED.**

PRESIDENT-ELECT'S REPORT

President-Elect Greg Phillips reported attending the Nevada Board for Professional Engineers and Land Surveyors meetings.

SECRETARY

Duties of Secretary included in agenda.

Secretary Justin Moore reviewed the duties of Secretary and requested the Board approve delegation of specific duties such as recording the minutes of meetings to the Executive Director.

MOVED by Justin Moore and **SECONDED** to delegate the duties of Secretary with the exception of attending all meetings and performing such other duties as may be assigned by the Board of Directors to the Executive Director. **MOTION CARRIED.**

TREASURER

Duties of Treasurer included in agenda.

Treasurer Robert Carrington reviewed the duties of Treasurer and requested the Board approve delegation of specific duties such as bookkeeping to the Executive Director.

MOVED by Robert Carrington and **SECONDED** to delegate the duties of Treasurer with the exception of attending all meetings, serving as the fiscal officer of the association, and signing all checks payable to Association Management Services or its employees to the Executive Director. **MOTION CARRIED.**

Treasurer Robert Carrington reviewed the financial statements as included in the agenda. It was noted that the association exceeded expectations last year and has now established a reserve fund.

MOVED by Greg Phillips and **SECONDED** to accept the Treasurer's report. **MOTION CARRIED.**

A resolution to approve signors on the NALS bank accounts was included in the agenda.

MOVED by Justin Moore and **SECONDED** to approve resolution authorizing signors on the NALS bank accounts. **MOTION CARRIED.**

NSPS FOUNDATION

Each year the NALS Board of Directors appoints the Principal Directors that serve on the NALS Education Foundation Board of Directors.

MOVED by Robert Carrington and **SECONDED** to appoint Jerry Juarez, Carl C.deBaca, Alan Dill, and Nancy Almanzan as Principal Directors of the NALS Education Foundation. **MOTION CARRIED.**

The Principal Directors will appoint the General Directors which will comprise the rest of the NALS Education

CONTINUED ON NEXT PAGE ►



Foundation Board of Directors. Marty Crook and Bill Kruger have both indicated interest in serving on this Board.

ADVANCED EDUCATION COMMITTEE

Report included in agenda.

Advanced Education Committee Chair Gene Sawyer reported that discussions continue regarding the potential of a minor program at UNLV.

BPELS LIAISON

Report included in agenda.

BPELS Liaison Greg Phillips reported the BPELS office is moving. The new office may have expanded audio-visual functions which may allow for the broadcasting of meetings.

The BPELS "Reconnect" Seminar was held in Las Vegas and was well attended. Similar seminars will be scheduled for 2019.

COMMUNICATIONS/PUBLICATIONS

Editor Carl C.deBaca reported that the Nevada Traverse that the fourth quarter Nevada Traverse has been published. Advertisers are renewing contracts for 2019 and the Board is encouraged to solicit new advertisers for the magazine.

CONFERENCE

Report included in agenda.

Conference Chair Nancy Almanzan provided a detailed list of the responsibilities of the Chapters and Board at the Conference.

Auction

The NALS Education Foundation is holding a contest between the NALS Chapters. The Chapter that donates the item that brings in the highest bid at the auction will receive a complimentary registration for the 2020 Conference that they may use to raffle at their December Chapter meeting.

NALS Booth

The Lahontan Chapter will be responsible for setting up the NALS Booth at the Conference. Crissy Willson suggested a wine vault raffle benefitting the NALS Education Foundation. A wine cooler will be purchased and filled with wine (and other spirits). The "vault" will be locked and keys sold. The key that opens the vault will win the cooler and contents.

LEGISLATIVE COMMITTEE

Report included in agenda

Legislative Chair Robert Carrington and outgoing Chair Jason Higgins reported on the bills that the committee is currently tracking. A bill tracking subscription will be purchased to assist the committee in tracking bills and reporting to the membership.

A bill has been introduced that would raise the minimum contract amount that triggers Quality Based Selection (QBS) from \$35,000 to \$100,000.

MEMBERSHIP

Report included in the agenda.

Membership Chair Justin Moore reported that the membership survey has been finalized as a SurveyMonkey will be sent. The results will be reviewed during the strategic planning session.

Membership continues to increase in all categories of membership.

NSPS

Report distributed at the meeting. (Attached)

NSPS Director Carl C.deBaca reported that he will attend the spring NSPS meetings.

The trend of deregulation continues to be an issue. An executive order was issued by the Governor of New Mexico that effectively deregulated several professions. The order excluded any profession that had its own practice act which exempted land surveying from the order. Although land surveying was not affected, it is still a concerning trend that NALS should watch closely.

PROFESSIONAL PRACTICES/ETHICS

Report included in agenda.

The Professional Practice/Ethics Committee Chair Justin Moore reported that Gene Sawyer and David Crook have both agreed to serve on the committee which provides north and south representation.

Guidelines for the committee will be reviewed during the update of all NALS Guidelines.

OUTREACH

Report included in agenda.

Outreach Chair Jerry Juarez reported that three schools have been confirmed for participation in TrigStar. GBC Student Sarah Walker is assisting the NSPS TrigStar Committee in developing new resources for outreach.

The Nevada School Counselors Conference will be held in March.

MOVED by Jerry Juarez and **SECONDED** to increase budget for outreach by \$750 to cover the cost of hosting a booth at the Nevada Counselors Conference. **MOTION CARRIED.**

WFPS

Report included in agenda.

WestFed has adopted a resolution supporting Quality Based Selection (QBS) which may be used by NALS if needed in opposing AB2.

LAHONTAN CHAPTER

The Lahontan Chapter continues to meet on a monthly basis. The average attendance at a chapter meeting is approximately 30. This year the Chapter will focus on outreach.

SOUTHERN NEVADA CHAPTER

The SNALS Chapter is finalizing their annual calendar which will be added to the NALS website calendar. The meetings will mostly take place during the

CONTINUED ON PAGE 30 ►



NSPS Nevada Director Report



by Carl C. de Baca, PLS, Nevada NSPS Director



I have recently inherited the position of NSPS Director for Nevada from Paul Burn, who has retired from the role after 15 years of dedicated service representing our state at the national organization. I can't say enough about Paul and the work he has done over the

years. His resolute leadership in NSPS will be sorely missed and his shoes will be hard indeed to fill.

As your new Nevada Director, I will be traveling to Arlington, VA on April 9 to attend the Spring NSPS meetings, in what constitutes my third posting in 20 years as an NSPS representative. It is my job to deliver any messages to NSPS that NALS wants me to deliver, continuously assert our concerns as a western state, and pay close attention to the issues and activities that NSPS undertakes so as bring that information back to the NALS board. I aspire to pursue this job as doggedly as my esteemed predecessor.

The winter of 2018 has been a pretty slow season with respect to actions taken and items considered by NSPS. Following is a brief list of NSPS concerns that may interest NALS members:

- The NSPS dues raise was voted in the affirmative at the Fall 2018 meetings and will go into effect with the 2019 dues. As you may recall, NALS voted to support this in early 2018.
- Tim Burch has won the recent election to Vice-President of NSPS, defeating Amanda Allred. Burch, who has occupied the Secretary position at NSPS for several years, will ascend to the presidency after serving as Vice-President and President-Elect.
- New Mexico Governor Susanna Martinez has issued an executive order radically changing professional licensing in her state. While surveyors may eventually benefit from a simplified reciprocity process, the executive order also cites a "Consumer Choice" provision that says a person could practice without a state license as long as his or her employer informed prospective customers of the lack of a license. Could this be a back door around licensure for drone operators and contractors? The provision does not apply to occupations for which state statute specifically requires a license. At least for now...

- An "issue" came up in December 2018 with respect to Arkansas. A data company recently submitted a Freedom of Information (FOIA) request to the Arkansas Geographic Information Office. The company requested the entire database of survey plats maintained by that office. The request was rapidly fulfilled, leaving the Arkansas Society of Professional Land Surveyors feeling that this leaves the door open for any individual or firm to obtain any or all of the mapping information, free of charge. This was sent out via email to the directors of the 50 states and led to a quick response from most. Because of recording laws in many of the states, it seems to be a non-issue.
- NSPS has developed template language for draft legislation is focused on the 2022 Datum change and is intended as a guide for changes to state legislation within any states where previous legislation makes reference to a particular iteration of the datum, rather than generically making reference to it.
- As the Traverse goes to press NSPS has announced that they have filed an Amicus Curiae Brief with the Louisiana Supreme Court in the case of Crooks V. State of Louisiana. The Louisiana Court Case has some extremely detrimental potential outcomes for the PLSS system in the United States. The case involved a court ruling in which it was determined that a 43,000-acre lake, as meandered by the GLO on 4 Township plats, is actually a river. The basic premise of the Judge's decision, in our view conflicting with Federal Government (GLO) procedures and plats, was that a cartographic map was a more accurate depiction of the boundary (at the time) than the GLO Plats. The Judge's ruling granted the underlying property to 54 adjoining land owners in the potentially multi-million dollar case.

I will have a more comprehensive report in the summer issue of the Nevada Traverse. If you have any questions or comments or just need more information regarding NSPS matters, please do not hesitate to contact me.

Respectfully submitted,

Carl C. de Baca



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National Society of Professional Surveyors

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Phone: 240-439-4615 * Fax: 240-439-4952

www.nspis.us.com

January 22, 2019

The President
The White House
Washington, DC 20500

Dear Mr. President:

This is to respectfully request that you issue a proclamation recognizing "National Surveyors Week" in 2019.

The National Society of Professional Surveyors (NSPS) is the national voice of land surveying professionals throughout the United States.

I am respectfully requesting that you issue a proclamation for the week of March 17-23, 2019.

Establishing a National Surveyors Week will call on the people of the United States to observe with appropriate ceremonies and activities the contributions to society of the surveying profession. In addition, this will invite the American people to look back at the historic contributions of surveying, as well as look forward upon the new technologies which are constantly modernizing this honored and learned profession.

The role of the surveyor has been, and remains, of vital importance in the development of the United States and to our cherished private property rights. Since the colonial days of this Nation, surveyors have been leaders in the community, Statesmen, influential citizens, and shapers of cultural standards. Former surveyors include George Washington, Thomas Jefferson, and Abraham Lincoln. It was the work of the surveyor that determined the boundaries of land, the greatest economic asset in the colonies that became the United States. Thomas Jefferson chaired a committee in 1784 to devise a plan for disposing of lands west of the 13 original colonies. He argued that surveying before sale was necessary to prevent overlapping claims and to simplify deeds and registers. Jefferson reportedly wrote a plan, which was debated in Congress and in modified form was adopted as the Land Ordinance of May 20, 1785, establishing the Public Land Survey System ('PLSS'), the rectangular system that continues to be in use in 30 midwestern and western States.

Today, there are over 45,000 professional surveyors in the United States. Along with the profession's well-recognized and essential role related to the description and location of public and private land boundaries, every day our government and free enterprise system relies upon surveying and geospatial data for the management of natural resources, economic development, the management, adjudication, and prevention of future disruptions in the home mortgage system, the development and implementation of a smart energy grid, the deployment of universal domestic broadband service, the management of Federal real property assets, emergency preparedness and response, homeland security, the delivery of efficient health care and other services provided, financed, or regulated by the Federal Government, measuring, monitoring, verifying and validating the effects of climatic and environmental phenomena, and the maintenance, rehabilitation, and enhancement of public works, transportation, and other infrastructure of the United States.

I respectfully request that you issue a National Surveyors Week proclamation for 2019 and welcome the opportunity to work with the White House staff on this important observance.

Sincerely,

Curtis W. Sumner, PLS
Executive Director



WFPS Highlights

WESTERN FEDERATION OF PROFESSIONAL SURVEYORS



The Western Federation of Professional Surveyors (WFPS) held a Board of Directors meeting on October 13, 2018 in Honolulu, Hawaii.

HIGHLIGHTS FROM THE 13 WESTERN STATES

ALASKA – The 2019 Conference will be held in February 16, 2019 in Anchorage, Alaska. Alaska will be hosting the WFPS meeting during the conference. WFPS will be providing speakers for the ASPLS Conference.

ARIZONA – Current membership is approximately 800. Conference will be held May 9-11, 2019 at the Hilton Scottsdale Resort and Villas in Scottsdale, AZ. APLS is working with the APLS Foundation to provide financial assistance to the Survey 101 program at Glendale Community College. The Arizona Board of Technical Registration has received APLS’s request to consider continuing education for licensure renewal and updating the Minimum Standards for Boundary Surveys. APLS is monitoring the deregulation considerations and a recent proposal to streamline the reciprocity process.

CALIFORNIA – The CLSA-NALS Conference will be held March 23-26, 2019 at the Silver Legacy Hotel in Reno, NV.

COLORADO – Current membership is approximately 368. The Conference will be held February 6-8, 2019 at the Arvada Center. PLSC made a generous donation of \$1000 to WFPS. PLSC also donated to the restoration of the 6th Principal Meridian initial point monument. PLSC volunteers have established a Survey Degree Program in Colorado through Western Colorado Community College and Colorado Mesa University and on-line classes have been offered. PLSC is actively participating in QBS meetings in Colorado. PLSC is actively participating in outreach activities including hosting a booth with a virtual sandbox at the guidance counselor conference.

HAWAII – Current membership is approximately 104. The Conference is tentatively scheduled for March 21-22, 2019. HLSA continues to work on addressing land surveying and title issues that rose from the 2012 legislation that facilitated the process for registered lands in Hawaii’s Land Court to de-register from that system. They have met with representatives from the state capitol and have secured a lobbyist to help with the process.

MONTANA – The Conference will be held February 19-22, 2019 in Billings, MT. The economy has been very good in Montana and survey work has been on the upswing. MARLS is preparing for the 2019 Montana Legislative Session.

NEVADA – Current membership is approximately 260. The CLSA-NALS Conference will be held March 23-26, 2019 at the Silver Legacy in Reno, Nevada. The NALS Education Foundation has completed guidelines and applications for four \$2500 scholarships: Great Basin Scholarship, Rita Lumos Scholarship, Bill Cuddy Memorial Scholarship and NALS Hispanic/Latino Scholarship. The NALS Legislative Committee has prepared draft legislation for the 2022 Datum. NALS donated \$2000 to the WFPS Scholarship & Relief Fund through the NSPS Foundation.

NEW MEXICO – The Governor of New Mexico recently signed an Executive Order deregulating several occupational professions. The order includes a paragraph that exempts the land surveying profession however, NMPS, the New Mexico Board of Registration and other states are closely monitoring the effects of the order.

OREGON – Current membership is approximately 493. PLSO has formed a Qualification Based Selection (QBS) Work Group to assist the Engineers (ACEC) and Architects (AIA). PLSO Outreach committee has created a ride-along, internship and mentorship program. The program has been very successful as all slots were filled for the 2nd year in a row. The PLSO rebranding effort has been completed.

UTAH – Current membership is approximately 400. The Conference will be held February 20-22, 2019 in St. George, Utah. UCLS is currently working with the Surveyors Historical Society to bring the 2019 Survey Rendezvous to Utah. The Standards and Ethics Committee is looking into the possibility of developing a system where subdivision monuments are not set in the center of roads, but rather in other locations that are easily occupied. UCLS is monitoring a bill in the legislature regarding Boundary Line Agreements and Boundary Line Adjustments.

WASHINGTON – Current membership is approximately 838. The Conference will be held February 27 – March 1, 2019 at the Tulalip Resort. LSAW has reached out to Idaho regarding a potential joint conference with WFPS and Idaho in 2020 in Spokane, WA. Washington has new topographic mapping requirements that took effect August 31, 2018. LSAW will be resubmitting a Survey Monumentation Preservation Bill in 2019 to the Washington Legislature.

WYOMING – PLSW is working on a destruction of monuments bill that will be presented at the 2019 Wyoming Legislative Session. The University of Wyoming has a Minor in Land Surveying as well as a Land Surveying Certificate Program. PLSW is working with the Board of Registration and the university on an outreach program to elementary through high school students. PLSW will be working with schools in November on the “Adopt a Surveyor” program.



WFPS FOUNDATION

The WFPS Disaster Relief and Scholarship fund has been established through the NSPS Education Foundation. Donations are now being accepted. The criteria and application information is attached and can be found on the WFPS website. Urgent assistance is needed for land surveyors that have been affected by the California wildfires.

Donations can be made mailed to WFPS: 526 South E Street, Santa Rosa, CA 95404.

WFPS AREAS OF FOCUS

Providing Resources to Benefit State Associations

WFPS is dedicated to providing resources to state associations. Following are a few of the resources that are available:

1. Speakers Bureau
2. Article Bank for Association Magazines
3. STEM Outreach Flyer

Serving as a Regional Voice

WFPS has adopted a resolution to support Quality Based Selection (QBS). The resolution is attached for your use. Should your state need a letter of support from WestFed regarding a QBS issue please contact the WestFed Office at admin@wfps.org.

About WFPS - PowerPoint

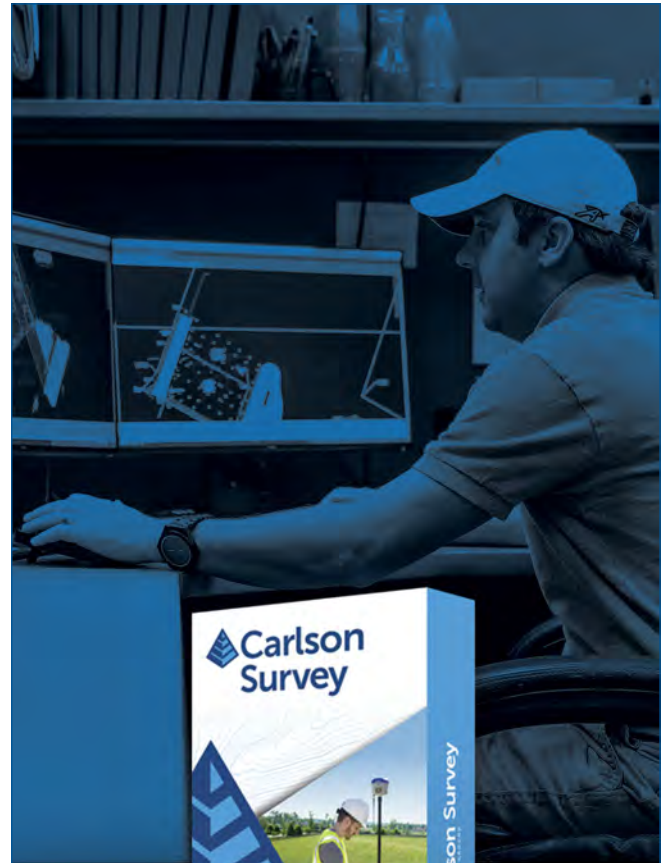
Get to know WFPS and how we serve the 13 western state surveying association. Visit the WFPS website, click "About WFPS" and download the WFPS PowerPoint.



About WFPS

The Western Federation of Professional Surveyors (WFPS) was formed in 1979. The Board of Directors includes two delegates from each of the 13 western states. WFPS serves as a regional voice for Land Surveyors and meets quarterly to discuss practice issues affecting western state surveyors. For more information about WFPS and the state associations, visit WFPS.org

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WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

RESOLUTION 2018-02

Supports Quality Based Selection (QBS)

WHEREAS, the Western Federation of Professional Surveyors (WFPS) is a regional association that represents the thirteen western State Professional Surveying Associations; and

WHEREAS, Qualifications-Based Selection (QBS) is a procurement process established by the United States Congress as a part of the Brooks Act for the selection of Architect and Engineering (A/E) professional services; and

WHEREAS, land surveying is defined as A/E professional consultant services; and

WHEREAS, QBS protects the public welfare and the taxpayer by ensuring public works projects are designed and built by the most qualified firms; and

WHEREAS, QBS fosters innovative, cost-saving and timesaving approaches to problems, ensuring that the final project meets or exceeds the functional and performance goals; and

WHEREAS, QBS benefits small firms that often include a greater degree of niche market expertise, knowledge of local regulations and business practices, and greater involvement of senior level management in the execution of a project; and

WHEREAS, QBS is a competitive contract procurement process whereby land surveying firms submit qualifications to a procuring entity who evaluates and selects the most qualified firm; and

WHEREAS, many states in the US have adopted their own versions of the QBS, commonly referred to as "Little Brooks Acts" or "Mini-Brooks Acts"; and

WHEREAS, the QBS contract procurement process selects the most qualified firm, and then negotiates the project scope of work, schedule, budget, and consultant fee and if the top-ranked firm is not a fair and reasonable fee the second-ranked firm is selected to negotiate a fair and reasonable fee, and so on until a contract is concluded; **THEREFORE BE IT**

RESOLVED, that the WFPS supports the adoption of "Little Brooks Acts" or "Mini-Brooks Acts" for state and local selection of land surveying professionals for public works projects; and **THEREFORE, BE IT FURTHER**

RESOLVED, that the Western Federation of Professional Surveyors hereby supports the Qualifications-Based Selection for the procurement of land surveying professionals for public works projects.

ADOPTED BY THE WESTERN FEDERATION OF PROFESSIONAL SURVEYORS BOARD OF DIRECTORS, OCTOBER 13, 2018



Matt Gingerich, PLS, WFPS Chair



The Moving Wall

By Nadia Sandoval

Contributed by Todd Enke

John & Irene Shahin established Eastside Memorial Park in 1985, transforming a field of sagebrush into a beautiful Memorial Park. Eastside Memorial was able to host two events for the first time in 2018: “The Moving Wall” and “Wreaths Across America”.

“The Moving Wall” a half replica of the Vietnam Memorial came to Minden for 5 days in late May of 2018. Owners of EMP, Nadia & Irene Shahin, were the brains behind the event from approaching the wall’s organizers to fundraising and recruiting volunteers to man the wall 24/7. Boy Scout Troop 411 and Cub Scout Pack 33 were privileged to lead the crowd of over 500 attendees in the pledge of allegiance during the opening ceremony.

The cemetery is now the forever resting place to over 320 veterans. Also for the first time EMP participated in Wreaths Across America to place a wreath on every veteran’s grave during the holiday season. WWA mission is to remember, honor, and teach. The community joined together on December 15th to ensure that their sacrifice is remembered yet again and passed on to a new generation of Americans. Both Troop 411 and Pack 33 once again lead the audience in the pledge of allegiance. (Please see photo below)

EMP was able to host both of these successful thanks to the support of the entire community. “Everyone pitched in to make these events possible,” Nadia Shahin said. EMP will continue to be a location for Wreaths Across America every year. In 2019 Eastside plans to add one more event a “Flag Retirement Ceremony” in June.

If you would like to participate in either of our 2019 events contact Nadia Sandoval at nadia@eastsidememorialpark.com or 775-782-2215.





Lahontan Chapter Report

Prepared by *Doug Larson*,
PLS, President - Lahontan Chapter

Lahontan Chapter Report – Winter 2018

2018 Officers:

President

Doug Larson, P.L.S.

dlarson@nvenergy.com

President Elect

Todd Enke, P.L.S.

tenke@roanderson.com

Secretary

Ken Mandryk, P.L.S.

kmandryk@gmail.com

Treasurer

John Gomez, P.L.S.

jgomez@WoodRodgers.com

Director

Kevin Almeter, P.L.S.

kalmeter@woodrodgers.com

Director

Dan Church, P.L.S.

sierrasurveying@sbcglobal.net

Director

David Crook, P.L.S.

dcrook@lumosinc.com

Chapter Representative

Justin Moore, P.L.S.

justin@odysseyreno.com

Past Activity

October's monthly chapter meeting with Larry Burtness, the Washoe County Recorder and Donny LaQue, Washoe County Chief Deputy Recorder was well attended. They spoke about what lengths the recorder goes to to ensure the continuing availability of record documents and maps, and their move towards a digital system and away from physical drawings.

The Lahontan Chapter's fall workshop was well attended as Mr. Landon Blake spoke about "Tools to Solve Boundary Survey and Land Title Problems" and "Assessing and Communicating Risk and Uncertainty in Boundary Surveys". His talk was engaging and enjoyable as well as educational. His "real life" examples really brought the topics he covered alive.

November's monthly chapter meeting speaker was Dwayne Smith Director, Engineering and Capital Projects Washoe County Community Services Department, who gamely spoke on changes in the County Surveyors office, which were fiercely debated among the membership at the meeting. Mr. Smith held

a follow up meeting later with a contingent of surveyors to listen to our concerns and try and find some workable solutions.

The Christmas party was held December 6, 2018 at the Revision Brewery in Sparks and was a huge success. I received much positive feedback on this venue and the catering.

I am especially proud of our community outreach this year. Between the food bank, the boy scouts, and our charitable giving to various causes we have really stepped it up a notch.

This will be my last chapter report, as my tenure as President of the Lahontan Chapter is coming to a close. When I started this journey I was a bit apprehensive. Especially about the speaking in front of a group. But, as time wore on, I became less and less worried about it and looked at the speeches as an opportunity to chat with my friends. Through this position this year, I have made so many more friends than I have made in my previous 20+ years in the survey business.

I'd like to thank the guys on the 2018 Lahontan Chapter Board of Directors. It was a privilege to serve with the gentlemen on this year's board. They made my tenure as president enjoyable and any successes we had this last year are truly all theirs.



Lahontan Christmas Party - 2018

by Doug Larson

On December 6th many friends and colleagues gathered at Revision Brewing Company in Sparks for the 2018 Lahontan Chapter Holiday Party. Excellent, brewed on site, beer and Mexican food from La Posada Real added to the festive mood. Donations were collected for three charities suggested by our members. Our Chapter donated \$259 to the Western Federation of Professional Surveyors Camp Fire Relief fund, \$190 to the Food Bank and \$93 to the Veterans Guest House. As can be seen by the photo a good time was had by all.





Lahontan Chapter Fall Workshop

by Justin Moore

It's that time again. The sun is setting earlier, leaves are dropping, frost on our windshields, and the looming renewal of our professional licenses is upon us. Luckily NALS Lahontan Chapter had you covered!



On Friday, November 2 the Lahontan Chapter held their annual fall 8 hour continuing education workshop at the AGC hall in Reno. Our guest speaker this year was Mr. Landon Blake of Stockton, CA. Mr. Blake is a professional land surveyor licensed in California and Nevada and is also the founder of Redefined Horizons (www.redefinedhorizons.com) a high quality education and professional development community for real property professionals. Landon spoke to us about “Tools to solve boundary survey and land title problems” in the morning session and closed out the afternoon with “Assessing and communication risk and uncertainty in boundary surveys”.



The lecture focused on ambiguity within land descriptions, easements of record or maybe not of record, title exceptions,

different types of title that can be held, and ideas on how to identify the amount of risk a project may contain and how we mitigate that risk. As professionals these are matters that we deal with on a daily basis and this workshop provided us with additional knowledge and insight that we can add to our toolbox.

Attendees of the workshop also enjoyed a continental breakfast, a delicious Mexican buffet provided by La Posada Real, and raffle prizes throughout the day. All proceeds from the day went directly back into our community. Landon Blake donated his speaking fee to the Terry Hayden Memorial Scholarship, the Lahontan Chapter made two charitable donations: 1) 2019 NSPS Nevada student competition (\$1500) 2) Wreaths Across America (\$375) which places wreaths on the grave sites of Veterans during the month of December.

The Lahontan Chapter would like to thank all who attended! This was an exciting event for our members and non-members alike. We all benefited professionally while making a positive impact within our community.



NALS Historic Committee Search

The Historic Committee is searching for pictures and narratives on past presidents and prominent contributive members. The presidents are known, but a list of contributive members needs to be developed. This year we hope to collect an overview of recollections, contributions and photos for both categories for future use. Respondents need not worry that two or more reply; information and photos received will be compiled by the committee.

Please respond to:

NalsHistory@GMail.com



Thank you!



Stepovak Bay... continued from page 7

replaced by GPS. The Cooperative Education program that the BLM entered into with various university programs has served the BLM well as several of my fellow students became instrumental and had long careers with Cadastral Surveys. But, the "ABC" method was a unique and useful survey procedure at that time, and I shall always remember the experience with fondness. The beauty and majesty of the Alaskan Peninsula and its wildlife will always stay with me and the experience has served me well through a long career in Surveying.

But for now, it was on to Anchorage, then Klamath Falls, and, beyond that - who knows?

⊗

NALS BOD Meeting Minutes... continued from page 21

lunch hour. In addition to monthly meetings the chapter plans to hold seminars.

LETTER TO CITY OF RENO UPDATE

Jerry Juarez has forwarded a draft of the letter to the City of Reno to Jason Higgins for review and dissemination to the Board.

WASHOE COUNTY SURVEYOR POSITION

Todd Enke provided an update regarding the Washoe County Surveyor position. The position of County Surveyor will be maintained with certain duties being outsourced to a private company.

AWARDS

Several nominations for awards were received. A SurveyMonkey will be sent to the Board of Directors to vote on awards. It was discussed that life memberships may be awarded by motion of the Board of Directors.

MOVED by Justin Moore and **SECONDED** to award Paul Burn life membership. **MOTION CARRIED.**

Editor Carl C.deBaca suggested in addition to article of the year, NALS should consider awarding an editorial of the year.

MOVED by Robert Carrington and **SECONDED** to add a second award for the Traverse for Editorial of the Year. **MOTION CARRIED.**

MEETING CALENDAR

- February 7-8 – Strategic Planning (Reno)
- March 23 – 26 – Conference (Reno)
- May 17 – NALS Board Meeting (Las Vegas)
- August 1 – NALS Board Meeting (Reno)
- October 18 – NALS Board Meeting (Las Vegas)

GOOD OF THE ORDER

Crissy Willson reported establishing a Google Drive for NALS. Folders will be created for each Chapter and Chapter leadership will be provided with access to store/share Chapter files.

ADJOURNMENT

The meeting was adjourned at approximately 3:00 PM.

⊗

Southern Chapter Christmas Party... continued from page 11

Our work continues. Please find time to volunteer your help to the Southern Chapter in our continuing efforts to bolster the future of Professional Land Surveying here, at home, in Southern Nevada.

Thank you,

Gene Sawyer, PLS, 2019 President, SNALS

⊗



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Photo of the Month



Photo submitted by Nick Montoya

NALS Launches Job Board

Visit the NALS Website at: NvLandSurveyors.org



NALS Job Board

Quick links: FAQ, ACP, MCP | Notifications | Private messages | nalsboardadmin

NALS Home Page | Board Home Page | NALS Jobs | NALS Job Board

NALS Job Board

Search this forum...

Mark topics read • 4 topics • Page 1 of 1

TOPICS	REPLIES	VEWS	LAST POST
Western NV College - Instructor Needed by nalsboardadmin » Thu May 17, 2018 9:19 pm	0	1	by nalsboardadmin Thu May 17, 2018 9:19 pm
Senior CAD Technician by sgrimmitt » Thu May 17, 2018 3:36 pm	0	1	by sgrimmitt Thu May 17, 2018 3:36 pm
Welcome to the NALS Job Board by nalsboardadmin » Wed May 16, 2018 11:57 pm	0	8	by nalsboardadmin Wed May 16, 2018 11:57 pm
Welcome to phpBB3 by nalsboardadmin » Sun Apr 15, 2018 12:10 am	0	3	by nalsboardadmin Sun Apr 15, 2018 12:10 am

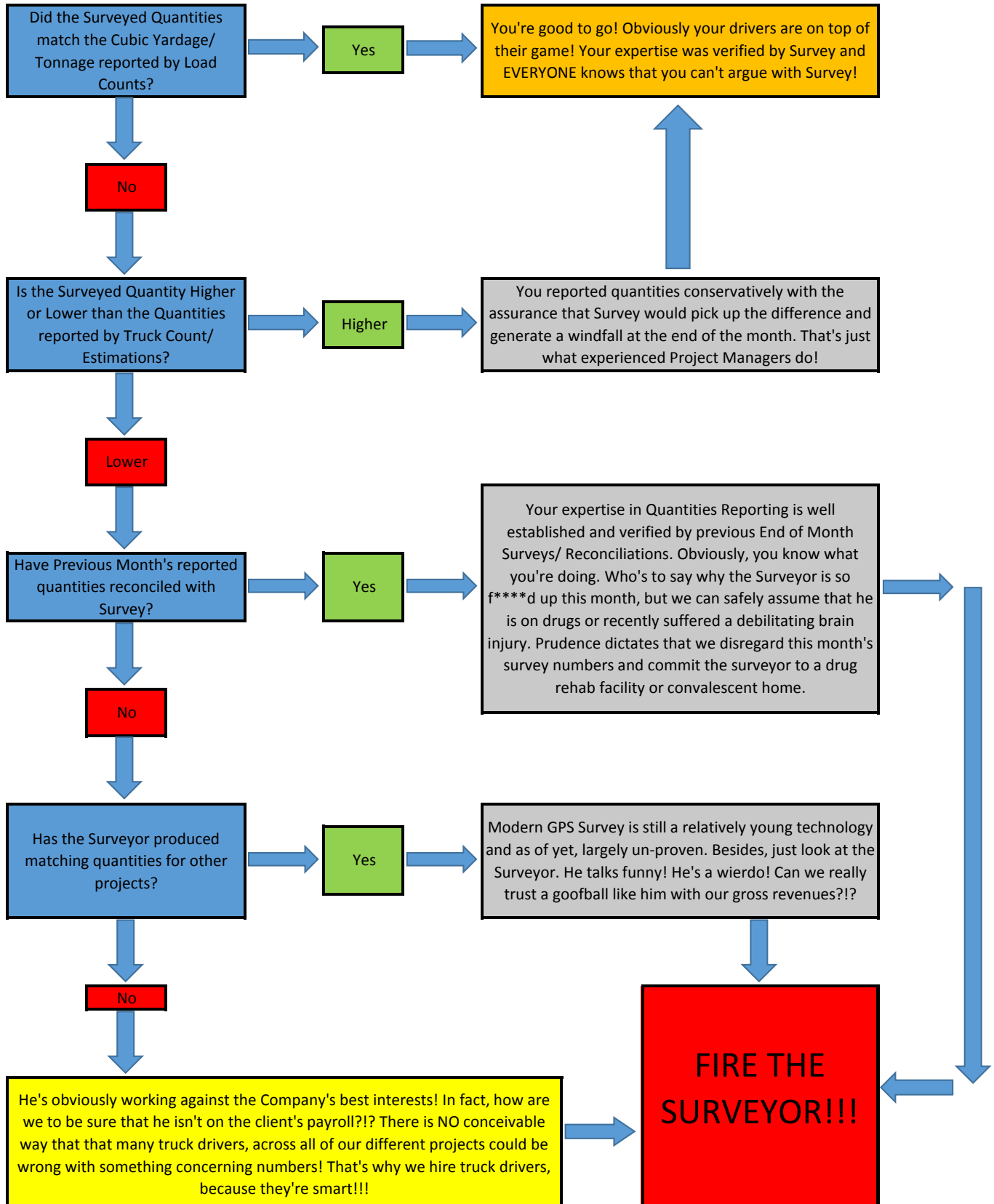
Return to Board Index | Jump to

NALS has launched a new job board to help employers fill vacancies and members search for new opportunities. The job board is a separate system from our members' portal, to post you will need to register and follow the onscreen prompts. Registration is free. You do not have to register to view postings.

EARTHWORK FOR THE CONTRACTOR

BY CAMERON FILER OF NA DEGERSTROM

END OF MONTH QUANTITIES RECONCILIATION FLOWCHART



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Nevada Transit & Laser	Outside Back Cover

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Taking Care of Business

The Nevada Traverse

The Nevada Association of Land Surveyors

Editor: Carl C.de Baca, PLS.

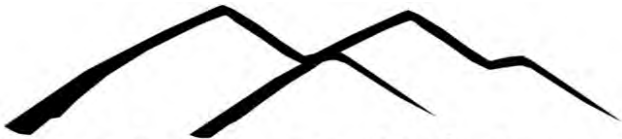
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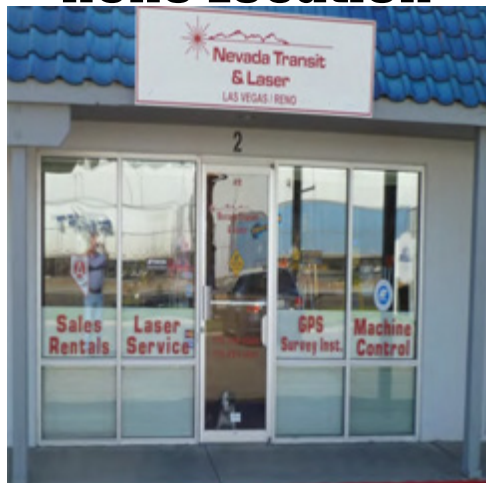
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