



# PLSO

**PROFESSIONAL LAND  
SURVEYORS OF OREGON**

**Supporting Oregon's Surveying Community and the  
Public it Serves**

**ACTE Conference, Portland Oregon April 12, 2024  
Presentation by: Jered McGrath PLS & Jesse White PLS**



# What is PLSO?



**Professional Land Surveyors of Oregon** is a not-for-profit statewide professional organization, that serves as the collective voice of the profession. We recognize our responsibility towards the protection of the public and strive to maintain the highest degree of ethical standards.

Our mission is to unite all licensed Land Surveyors in the State of Oregon:

- To promote legislation and educational programs to improve the professional status of Oregon Land Surveyors; and
- To advance the profession of Land Surveying by promoting high standards of practice and ethical conduct, holding paramount the interests of the public.



# What is Land Surveying?



There are many definitions out there, but most of them will tend to be biased towards specific industries. Whilst all definitions are correct, Land Surveying doesn't fit in one single industry, but rather spans across multiple disciplines.

# What is Land Surveying?

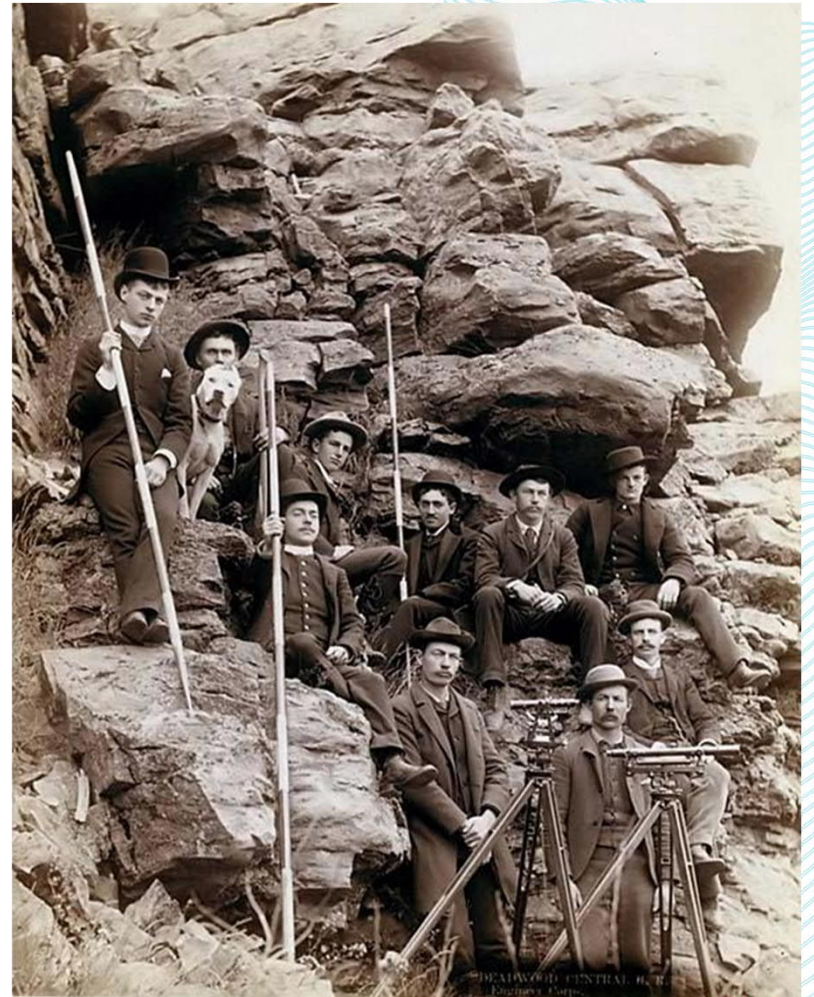
- One of the world's oldest professions that can trace its roots back to ancient civilizations like Egypt and Greece.
- Uses a combination of technology, mathematics, and problem-solving skills to create detailed maps that determine a piece of land's boundaries and features.
- Land surveyors play a crucial role in infrastructure development by providing essential information and data for the planning, design, construction, and maintenance of various infrastructure projects, such as bridges and tunnels, dams, parks and recreational areas.
- Process of gathering, collecting, and processing geographical data for creating an informational report about the surveyed area.





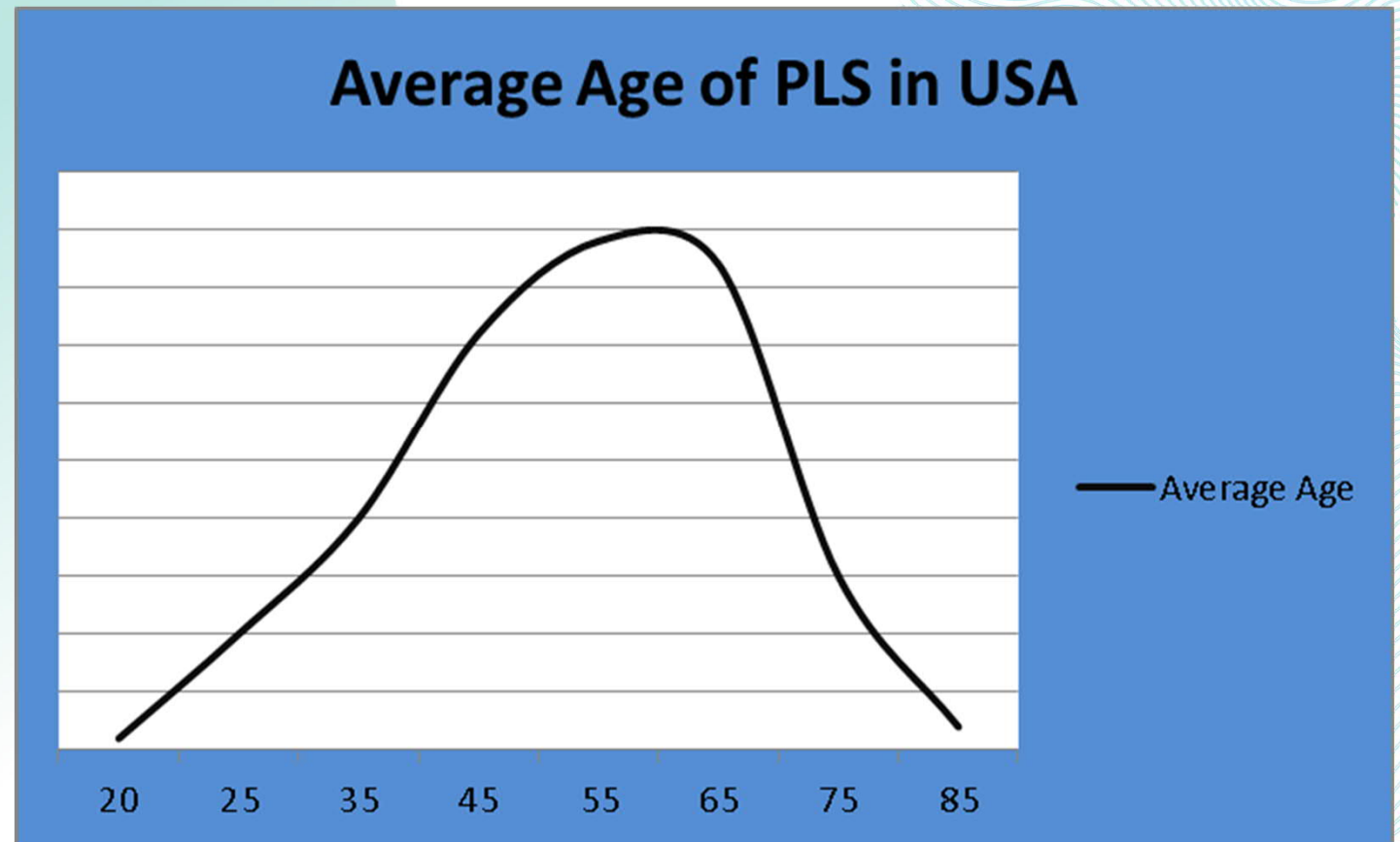
# What is Land Surveying?

- Turn of the Century crews consisted of large parties, each member with a specific task.
- Brush cutter
- Front Rodman
- Instrument man
- Rear Rodman
- Front Chainman
- Rear Chainman
- DON'T FORGET THE DOG!



# Who Are Surveyors?

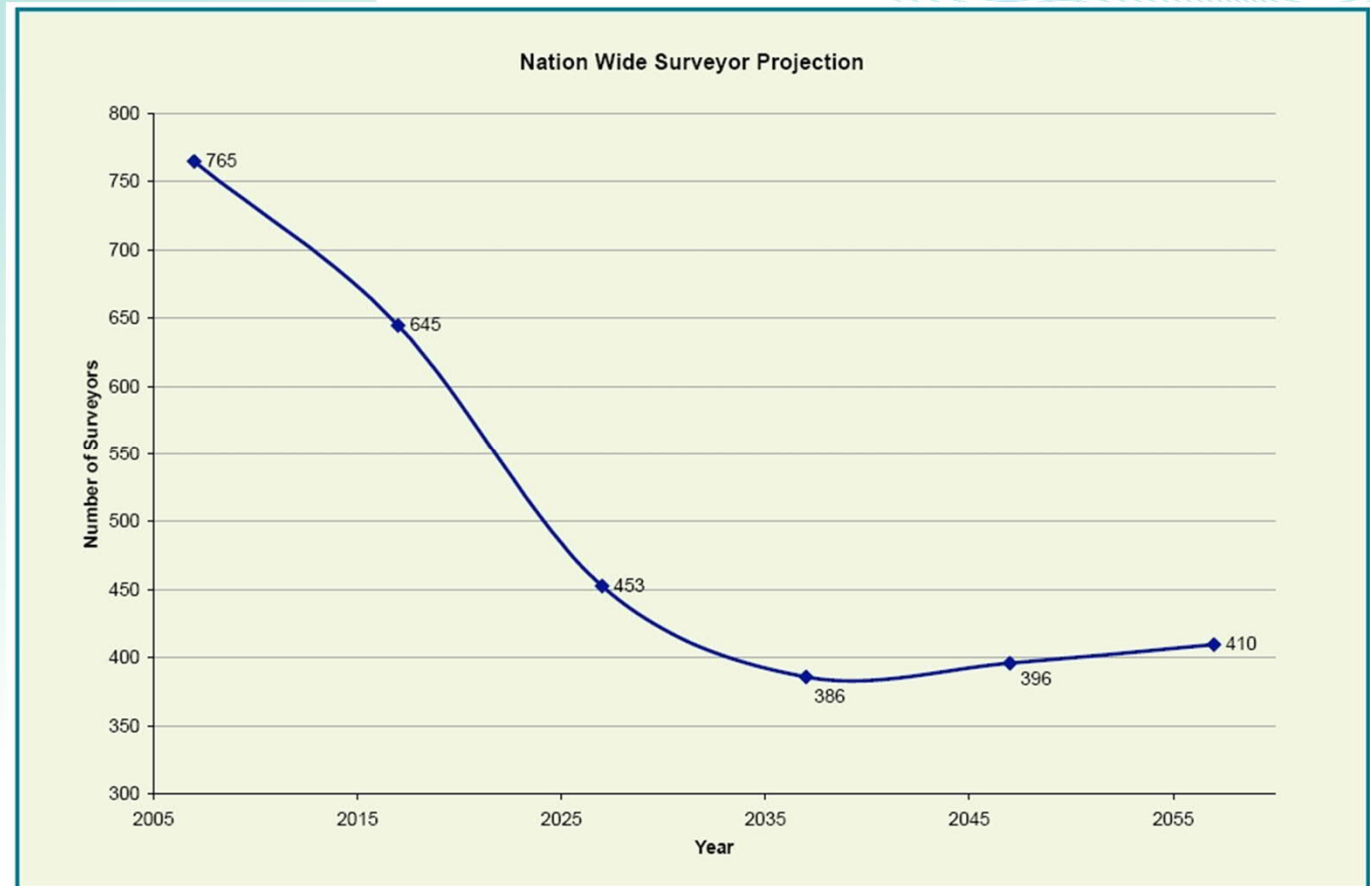
- Average Age Surveyor
  - 58-65
- Average Age of Engineer
  - 33-43





# Where are they ?

- Average Age Surveyor
  - 58-65
- Average Age of Engineer
  - 33-43
- Graph is Average Per state



# Top 6 Reasons Your Students Should Become a Land Surveyor



- 1. They Don't Want a Desk Job**
- 2. They want a Job with Indoor and outdoor opportunities.**

Land surveying is perfect for people who don't want to be in an office all day and enjoy getting outside. Surveying involves both fieldwork and office work, making it a great career choice for outdoor enthusiasts.











# Top 6 Reasons

## 2. They Like Working with Technology

Since surveyors are responsible for taking precise measurements of land to determine property boundaries and develop land, they work with some very high-tech equipment and programs, including GPS devices, 3D laser scanning technology, drones, and computer-aided drafting software.



# ANOTHER TOOL IN THE TOOLBOX

GPS / RTK



Conventional  
(Robotic)



Data Collection  
GIS / Automation



Automatic  
Level



Terrestrial LiDAR



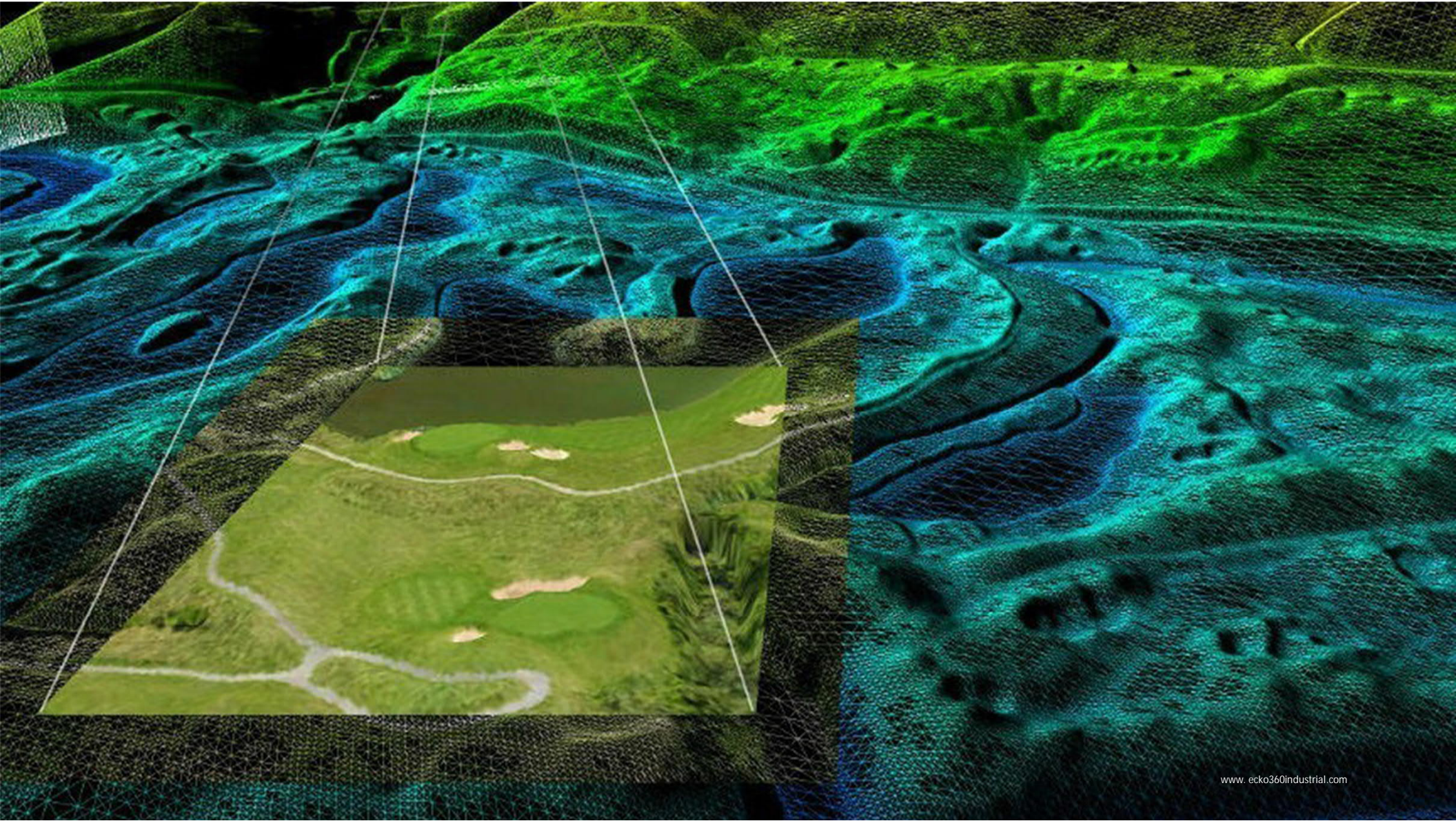
UAV/Drone







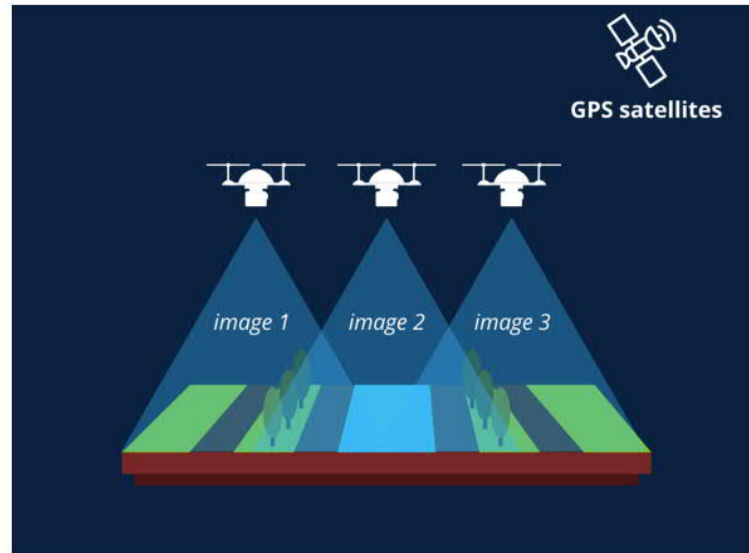
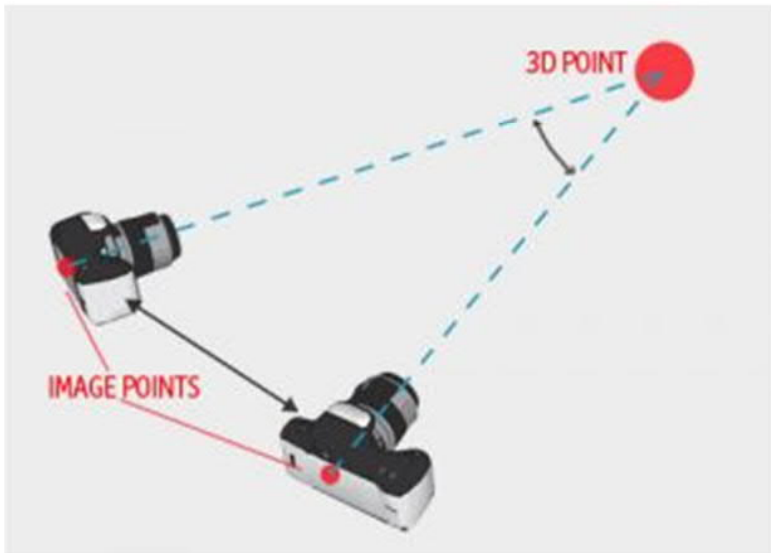






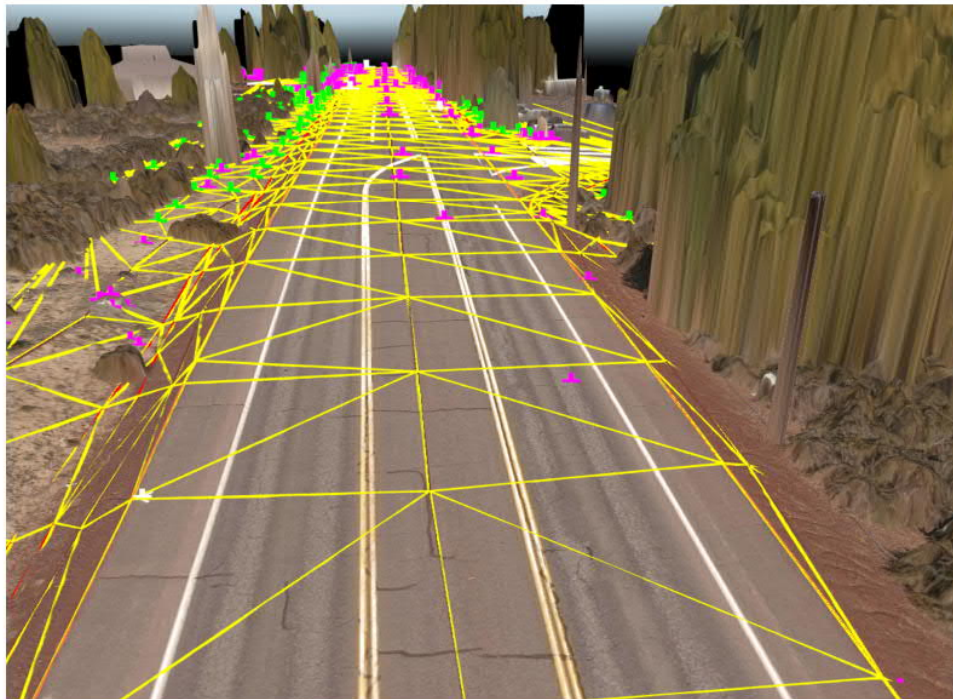
# DRONE MAPPING

## Photogrammetry



# PHOTOGRAMMETRY: EXTRACT DATA

- **Points**
  - .csv in PNEZD
- **Lines/Breaklines**
  - .dxf on correct layers
- **Surfaces**
  - .xml



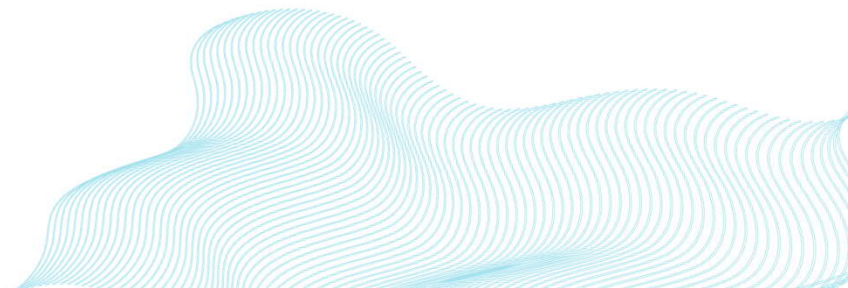


# Top 6 Reasons



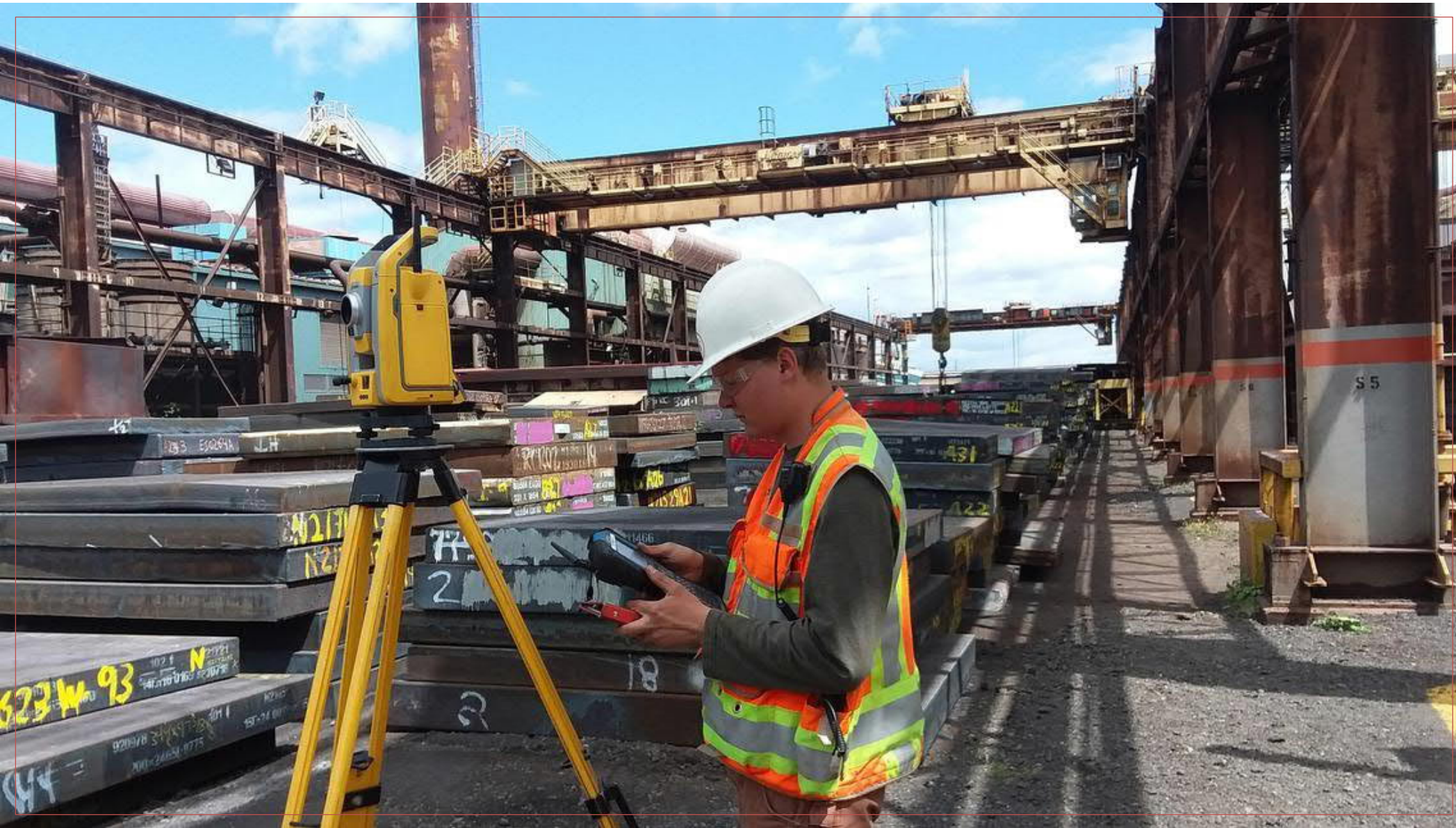
## 3. They Prefer a Variety of Projects to Work on

Surveyors work on different projects at various locations, while collaborating with several different professions all the time.



















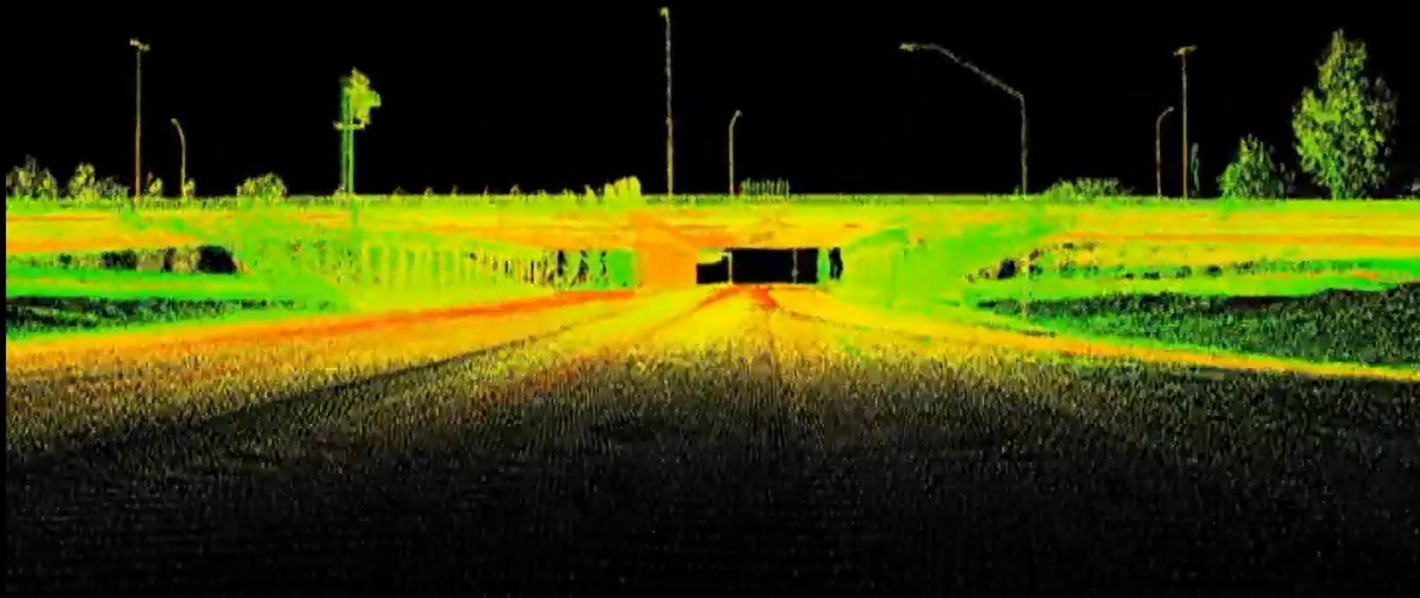
# Freeway Scanning



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0:53 / 3:34



YouTube















# Top 6 Reasons



## 4. They Are Curious And Like To Problem Solve

Land surveyors are often part detective, using everything from historical research to on-site data and measurements to solve a problem or answer a question for a client.













# Top 6 Reasons

## 5. They Want a Career that Makes a Difference

A professional land surveyor's most important role is to protect the public it serves. From boundary work and construction projects to court cases and land mapping, surveyors, and the data they collect play an important role in our world. It's a career that impacts a wide variety of fields and industries and their work shapes everything from building projects to geographic information system (GIS) data.







# **Hurricane Ida Emergency Hydrographic Surveys**

[www.deainc.com](http://www.deainc.com)







# Top 6 Reasons



## 6. They Want A Great Paying Career That's In-Demand

With more licensed surveyors retiring than graduates coming out of school, the profession's workforce is in need. There are many pathways to become licensed, including starting out in the field and working up through field work, or gaining your associate, undergrad or graduate degrees.



# How do they become a land surveyor?

1. Students may follow a few different pathways towards licensure:
  - Four-year degree in Geomatics + 3 years field work
  - Two-year degree in Geomatics + 6 years field work
  - No degree requires 9 years of field work
2. Pass required national and state exams
3. Apply for license through the Oregon State Board of Examiners for Engineering & Land Surveying



# College Options 1, 2, 4 years





# Why College

1. Learning to think and live independently.
2. Prepare for a career not just a job.
3. College can help you turn your passions and interests into a career you love.
4. Fast Fact: Choosing a college major does not limit you to one type of career.
5. Groundwork for Future Networking
6. Courses that prepare you for life.
7. Public Speaking
8. School wants you to succeed!
9. Tutors, State of art computer labs, reference materials
10. Professors knowledge pool is limitless.



# Experience Only

1. Traditionally and still today the answer is YES!
  1. On the job training is an integral part of the Surveying profession.
2. Character traits every employer wants, needs!
  1. INTEGRITY
  2. MOTIVATED
  3. PUNCTUAL
  4. PERSONABLE
  5. FLEXIBLE
3. Seek a Local Company! Can be through PLSO.
  1. Ride along, Intern, Seasonal help.
  2. Work in General Construction







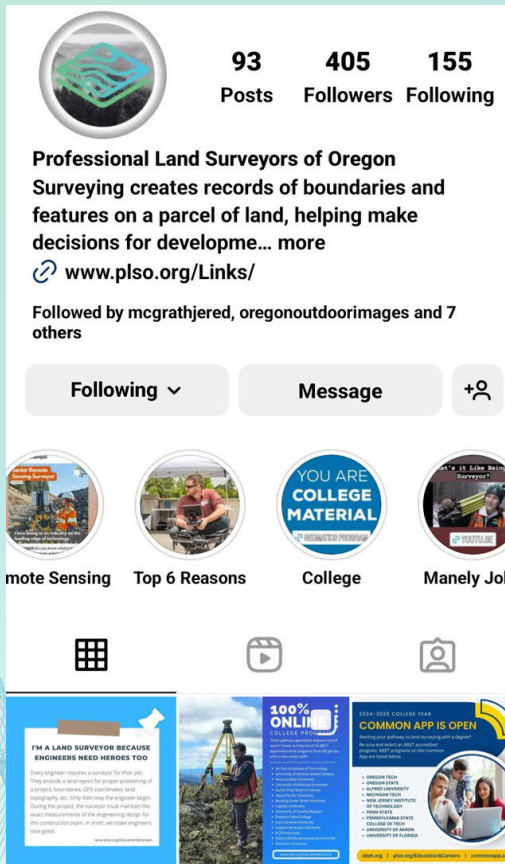
# PLSO.ORG IS A RESOURCE



- **College & Career Information**  
Career Videos, College Programs, Scholarships, Mentorships, Entry-level and Internships Opportunities
- **Teachers**  
Lesson plans listed by grade level, Videos; Ask a surveyor to come speak to your class
- **Property Owners**  
Find a Surveyor Directory, Frequently Asked Questions



# SOCIAL MEDIA



Professional community news and updates  
@ProfessionalLandSurveyorsOfOregon



@ORLandSurveyors



Professional Land Surveyors of Oregon  
Group



Promote the profession and pathways to  
licensure @plso\_1959