Fall 2025

THE

NEBRASKA Surveyor



In this Issue

UNITED STATES LAND SURVEYS ANALYSIS OF THE SYSTEM United States Land Surveys METES AND BOUNDS DIAGRAM I. William . MERIDIANS AND BASE LINES



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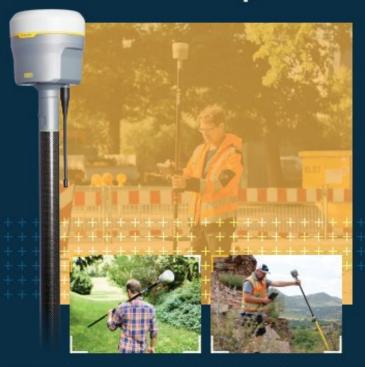
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Chris Schulte (2024-2025)

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Full Page	\$100	\$150
Full Page Inside Cover	\$150	\$200

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- Payment must accompany the advertisement request.
- All ads must be professional in nature.
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- Published quarterly Winter, Spring, Summer, Fall.

Editor: Gwen Bowers at 402-432-3444 or email: PSAN@nebraskasurveyor.com



NEBRASIA Surveyor

Fall 2025

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Professional Surveyors Association of Nebraska

The Nebraska Surveyor is the official publication of the Professional Surveyors Association of Nebraska (PSAN). It is published quarterly: Winter, Spring, Summer, and Fall. All issues are published on the PSAN website. Material published is not copyrighted and may be reprinted without written permission as long as credit is given.

Articles and columns appearing in the publication do not necessarily reflect the viewpoint of PSAN, but are published as a service to its members, the general public, and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes, or deletions as to its contents.

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The Nebraska Surveyor

deadlines to submit content for publication:

Winter: February 15
Spring: May 15
Summer: August 15
Fall: November 15

President's Letter

December 9, 2025

I look forward to seeing everyone at the 2026 Winter Conference in a couple of months, registration is now open so make sure you get signed up! I know many of us pay our annual dues at the same time so don't forget about that as well. The 4th Annual Cornhole Tournament will also be held Thursday evening, February 12th so make sure you have a team ready to go.

As my time as President draws to an end, I wanted to thank the board, officers and Gwen for all of your assistance during my tenure. It has truly been an honor, and I look forward to what the future holds for the association.

One note for the general meeting in February is that we will be taking a vote to make some changes to the Association By-Laws and the Constitution, you will be receiving an email outlining the changes, please take some time to review and I look forward to any discussion at the meeting.

I wish all of you a Happy Holiday season and look forward to seeing you all in February.

Sincerely,

Chad Marsh
PSAN President

2026 Winter Conference

Charl W. Marsh

February 12-13, 2026 Holiday Inn & Convention Center Kearney, Nebraska



Summary of September 17, 2025 PSAN Board Meeting Minutes

Subject to approval by the PSAN Board of Directors

The PSAN Board of Directors Meeting on September 17, 2025, was held at the Nebraska State Surveyor's Office in Lincoln, Nebraska and began at 10:03AM CT.

The roll call was as follows:

President, Chad Marsh — Present
President-elect, Brian Foral — Present
Treasurer, Josh Borchers — Present
Secretary, Jeremy Feusner — Present
Administrative Secretary, Gwen Bowers — Present
Directors

Jai Andrist—Absent

Dylan Campbell — Present

David Forsythe—Present

John Howell — Present

Mike McNaney — Present

Chris Schulte—Present

Casey Sherlock, State Surveyor — Present

Jon Carrell, SENLSA Affiliate — Present

Guests: Jerry Penry and Dan Martinez

Minutes from the June 11, 2025 PSAN Board of Directors meeting were read and approved.

Officer Reports

Treasurer, Josh Borchers: The Treasurer's Report dated September 9, 2025 was approved.

The Proposed 2025-2026 PSAN Budget was approved.

Standing Committees

Conference

- **2026 Winter Conference:** Will be held in Kearney, NE. Keynote speakers, Chappy Young and Corky Rodine.
- **2026 Summer Conference:** To be held in Yankton, SD. Tim Gobel will host.
- Request was submitted and approved to solicit RFPs for the 2028 and 2029 winter conferences in Kearney with a 2030 option in Omaha or Lincoln.

Education

- Boy Scouts Merit Badge University in August, SD, NE, KS.
- Working on FS/PS documentation/training.

Historical

- Cast Iron Monument Work Day: More volunteers were needed. The monument is a public site with national visitors, and its condition reflects on the group.
- 160th Anniversary (6th PM): The site remains well maintained following the June anniversary. There is interest in possibly partnering with Kansas to plant a

commemorative tree.

NW Corner Access & Culvert Issue: Access to the NW corner currently requires crossing private property, but the landowners do not allow public passage due to liability concerns. A washed-out culvert at Indian Creek was never replaced. Creating an alternative access route would involve protected land, require extensive permits and federal approvals, and be expensive. Further research into procedures and costs will continue.

GIS

- **Field Testing:** Field-testing NATRF2022 may be supported as of January 2026.
- NGS Status: The National Geodetic Survey (NGS) has experienced a reduction in force, which has caused confusion regarding the release of NATRF2022. Brian Shaw is the interim NGS Regional Geodetic Advisor for the Northern Plains and Rocky Mountain regions.
- Support Uncertainty: There is uncertainty about the long-term support of OPUS for NAD82(2011) post-processing. Uncertainty also exists around how long various Real-time networks will support NAD83 mount points; however, it's expected that dual mount points will be available for some time, supporting both NATRF 2022 and NAD83.
- Overlap Period: The issues above raise questions about an "overlap period" to complete projects referencing NAD83.
- Translation Tools: Various State and Local agencies will look to vendors such as Esri, Trimble, and Carlson for tools to translate data from NAD83(2011) to NATRF2022.
- Data Reprocessing: Many agencies/organizations do not have Raw GPS/GNSSS data to reprocess in NATRF2022.
- **Outreach:** A question was raised regarding the necessary type and timing of outreach efforts.

Nominations: Five positions are up for election: Vice President, Secretary, and 3 Board Members. Request for help from members of the board to help identify potential candidates for the ballot.

NSPS

- Continues to serve on the Executive Committee (term ends Spring 2026) and remains active on the NSPS Foundation.
- Acts as Certified Floodplain Surveyor and liaison to that committee; also serving as a judge for the NSPS Map Competition.
- Missed the Spring meeting earlier this year but will attend the Fall meeting in Minneapolis.
- Upcoming meetings: Spring 2026 in April (Crystal City) and Fall 2026 in October (Deadwood).
- Tim Burch is actively working on marketing and membership initiatives.

Summary of September 17, 2025 PSAN Board Meeting Minutes (con't)

Subject to approval by the PSAN Board of Directors

- Information is being gathered on the trading cards project, which has an associated cost, for future Board updates.
- NSGS Modernization efforts received positive feedback.

Membership Applications

One application for Active membership was received and approved.

Old Business

SCC Discussion: SCC still has not hired a teacher for the Land Surveying program. Students have been disappointed with the education they have been receiving. At the December PSAN Board Meeting, the PSAN Board will continue the discussion regarding PSAN's support/involvement with the program after SCC's September WLT meeting.

Storage of PSAN Items: Chris Schulte researched various permanent options (both physical and digital) for permanent storage of PSAN items that several members have kept over the years and would like to have the association take possession. The Board will send a solicitation communication to members to bring items to the State Surveyor's office to review the type and volume of the items to determine an appropriate plan for long-term storage.

New Business

A few years ago, when dues were increase for all other levels of PSAN members, Sustaining Member dues were not increased. It was discussed, moved, and approved to increase Sustaining Member annual dues to \$500.00.

The meeting was adjourned at 12:44PM CT.

After the complete September 17, 2025 Board Meeting Minutes are approved by the PSAN Board of directors, they will be published to the PSAN website.

https://nebraskasurveyor.com/meeting-minutes/





2026 PSAN Winter Conference

February 12-13, 2026

Holiday Inn Hotel & Convention Center 110 2nd Ave, Kearney, NE



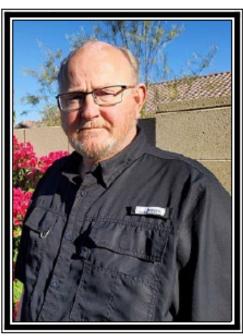
Keynote Speakers

Corky Rodine, BLM Cadastral Surveyor, retired

Corky worked for the BLM for over 37 years. His entire BLM career involved the execution, review, approval, protests, and appeals of BLM Dependent Resurveys. He completed twenty-one Cadastral Surveys in thirteen states, many of which were complete township resurveys, along with several office and field examinations of federal and private surveys. In Florida alone, he has surveyed approximately 223 miles of federal boundaries. Corky has served as a classroom and field instructor in the history and administration of the Public Land Survey System (PLSS) including proper retracement techniques for professional surveying associations in Alabama, Florida, Louisiana, Minnesota, Mississippi, North Dakota, Virginia, and Wisconsin from 1979 to 2010, and most recently again in Florida in 2022.

Currently, he is employed with GCY, Inc. as a General Land Office (GLO) Consultant. He interprets and analyzes specific PLSS surveys and provides expert witness testimony as needed.

His extensive knowledge and experience of the PLSS offer unique insights into the work of the original Deputy Surveyors and their records.



Corky Rodine



Chappy Young

George C. (Chappy) Young Jr., PSM

Chappy began his surveying career in 1964. After being honorably discharged as a surveyor for the U.S. Navy SeeBees in 1972, he returned to Hutcheon Engineers, Inc, where he also completed his A.S. degree in Land Surveying from Palm Beach Junior College. In 1984, Chappy established CGY, Inc. Professional Surveyors and Mappers where his company has performed survey related projects of over 499,400 acres in Florida. Most of the large surveys have been for the FDEP/DSL/BSM, totaling over 330,000 acres+ conducted over 20+ years. The foundation to those surveys has been "Retracement Surveying", which he has embraced since his early days. As a PSM and expert witness, Chappy has been involved with 108 disputes, testified in 38 depositions and 21 times in court. He was an Adjunct Professor teaching "Legal Aspects of Surveying" at Florida Atlantic University's Geomatics Engineering Program, a program where he also served as an Advisory Board Member.

	THURSI	DAY February 12, 2026		
7:00 - 8:00	REGISTRATION	Pre-Function Ar	reo	
8:00 - 8:15	WELCOME & ANNOUNCEMENTS	Ballroom I & II		
8:15 - 9:30	GENERAL ASSEMBLY	BUSINESS MEETING Ballroom I & II	FS Exam Prep Matt Fouts	
9:30 - 10:00	BREAK/EXHIBITS	Pre-Function Area		
10:00 - 12:00	KEYNOTE SPEAKERS	History, Administration, and Retracement of GLO Surveys Chappy Young & Corky Rodine	FS Exam Prep Matt Fouts	
12:00 - 1:00	LUNCH	Ballroom I & II		
1:00 - 2:45	KEYNOTE SPEAKER	History, Administration, and Retracement of GLO Surveys Chappy Young & Corky Rodine	FS Exam Prep Matt Fouts	
2:45 - 3:15	BREAK/EXHIBITS	Pre-Function A	rea	
3:15 - 5:00	GENERAL SESSION PRESENTATION	History, Administration, and Retracement of GLO Surveys Chappy Young & Corky Rodine	FS Exam Prep Matt Fouts	
5:00 - 6:00	SOCIAL HOUR	Pre-Function Area		
6:00 - 9:00	DINNER, AWARDS BANQUET, AND AUCTION	Baliroom I & II		
9:00-11:00	CORNHOLE TOURNAMENT	Ballroom I & II		
	FRIDA	Y February 13. 2026		
7:00 - 8:00	PAST PRESIDENT & GUEST BREAKFAST	Conference Room 174		
8:00 - 9:45	BREAK OUT SESSIONS	Using FEMA's eLOMA System Brian Yentes, PLS & Elijah Kaufman, CFM	UAV and Part 107 TBD	
		The Surveyor in Court Chappy Young & Corky Rodine	FS Exam Prep Matt Fouts	
9:45 - 10:15	BREAK/EXHIBITS	Pre-Function Area		
10:15 - 12:00	GENERAL SESSION PRESENTATION	Case reviews: Retracement Survey & Section Corner Dispute Chappy Young & Corky Rodine	FS Exam Prep Matt Fouts	
12:00 - 1:00	LUNCH	Ballroom I & II		
1:00 - 2:45	BREAK OUT SESSIONS	The Elevation Certificate: An Overview for Surveyors Elijah Kaufman, CFM	2026 Revisions of the NSPS/ALTA Standards Dan Martinez	
		GIS and the Surveyor- Past, Present and Future Chad Kendall and Doug Guess	FS Exam Prep Matt Fouts	
2:45 - 3:00	BREAK/EXHIBITS	Pre-Function A	rea	
3:00 - 4:45	GENERAL SESSION PRESENTATION	Ethics Todd Weidema Attorney, Woods Ait		

Hotel Information

Holiday Inn Hotel & Convention Center

110 2nd Avenue Kearney, NE 68847 (308) 237-5971

When making room reservations, indicate you are attending the Professional Surveyors

Association of Nebraska conference (not just PSAN) to ensure you receive the group

block rate.

A limited number of rooms have been reserve until January 15th, for PSAN attendees.





Auction and raffle items are welcome at the 2026 Winter Conference!

Contact Gwen Bowers and bring your item to the conference.

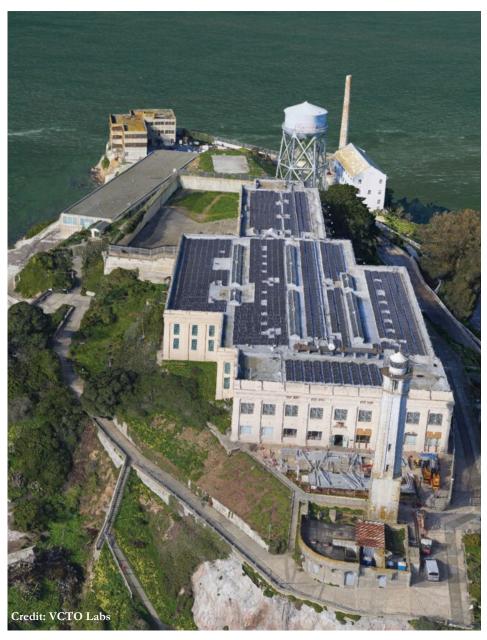
PSAN 2026 WINTER CONFERENCE	REGISTRATION FORM	
Thursday and Friday, February 12-13, 2026	PSAN or NSPS Member in Advance: \$300	
Register online now at www.nebraskasurveyor.com OR	Non-Member in Advance: \$400	
complete this form today.	Pre-exam Workshop \$200	
	SCC Student \$0	
NAME:	Late Fee (after January 29, 2026) \$15	
	Do you plan to attend Thursday Evening Banquet?	
ADDRESS:	Yes No	
CITY: STATE: ZIP:	Additional lunch tickets \$25	_
	Additional banquet tickets \$35	_
PHONE #:	Total amount enclosed	_

Building the Geospatial Nervous System:

Jack Dangermond's Vision for the Future

BY XYHT STAFF

Oct 03, 2025 — xyht.com



The geospatial industry is moving through a period of profound transformation. Advances in reality capture, artificial intelligence, and cloud integration are converging with urgent global challenges, from climate resilience to urbanization. In this moment, few figures are as influential as Jack Dangermond, founder and CEO of Esri.

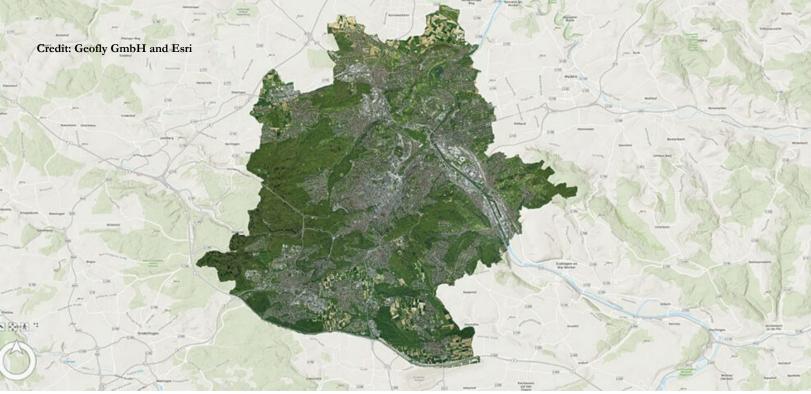
For more than fifty years, he has guided the evolution of geographic information systems from a specialized tool to a global platform shaping decisions across governments, businesses, and communities.

In an extended conversation with xyHt, Dangermond shared not just technical observations but a sweeping vision for the future of GIS. He spoke of digital twins as living systems, of a distributed geospatial infrastructure that functions like a planetary nervous system, of intelligent agents augmenting professional expertise, and of the cultural work needed to bring it all together. The picture he painted is not simply about software — it is about reshaping how society organizes knowledge and acts upon it.

GEOGRAPHY AS THE SCIENCE OF INTEGRATION

Dangermond returned again and again to geography itself, which he describes as the science of integration. Geography, in his words, "is everything." It weaves together geology, sociology, climatology, hydrology, and countless other disciplines into a coherent framework for understanding the world.

GIS, he explained, is the tool that abstracts those disciplines into usable form. By organizing observations and measurements into layers — cadastral boundaries, soil maps, land use classifications, transportation networks, imagery — GIS makes geography computable.



The common denominator is location, which he called "the integrator." Location allows data from disparate sources to be aligned, compared, and analyzed.

This integrative function is more than an academic exercise. It allows planners, scientists, and policymakers to see patterns that would otherwise remain invisible. When zoning maps are overlaid with floodplain data, risks emerge. When vegetation indices are combined with soil and climate models, agricultural opportunities become clearer. Geography, mediated by GIS, becomes actionable knowledge.

DIGITAL TWINS AS LIVING SYSTEMS

From this foundation, Dangermond turned to digital twins, one of the most rapidly advancing applications of GIS today. Reality capture technologies — LiDAR, photogrammetry, UAV point clouds — are producing unprecedented levels of detail. Building information models and meshes add another layer of fidelity. But for Dangermond, the real challenge is not capture but integration.

Digital twins, he argued, should not be treated as static

deliverables. Too often they are created for a project, handed over, and left to gather digital dust. In his view, that misses the point. "Digital twins are the living synthesis of GIS layers," he explained. They should be maintained and continuously updated,

"Geography is everything. It integrates science and human activity into a whole."

ingesting sensor data and adapting as reality changes.

The implications are significant. A city that integrates BIM, traffic flows, environmental monitoring, and social data into a GIS-based digital twin can do more than document its infrastructure. It can simulate future conditions, model the impact of policies, and guide decisions with an unprecedented level of precision. A river basin twin that incorporates hydrology, land use, weather forecasts, and soil data becomes a dynamic tool for predicting floods and managing resources. The

key is continuity — a twin that evolves as the world does.

A GLOBAL GEOSPATIAL INFRASTRUCTURE

Perhaps the most ambitious element of Dangermond's vision is what he describes as a global geospatial infrastructure — a distributed system he likens to the internet. Just as the internet began as isolated networks before coalescing into a connected framework that underpins modern life, geospatial is moving in the same direction.

The outlines are already visible. National efforts like the U.S. National Spatial Data Infrastructure and Europe's Inspire program laid early foundations. Statewide platforms in Alaska and national portals in Australia demonstrate the model at different scales. ArcGIS Online now connects billions of maps and datasets worldwide. Yet Dangermond sees this as only the beginning. He envisions a jump from today's several billion maps to many tens of billions, all linked, interoperable, and searchable. In this vision, a planetary nervous system emerges — not replacing local datasets but connecting them, allowing



distributed content to be discovered and integrated. APIs, metadata standards, and governance frameworks form the scaffolding, but the real power lies in the ability to align data globally.

The urgency is clear. Climate adaptation, urban growth, supply chain resilience — all depend on cross-border, cross-domain geospatial intelligence. No single agency or nation can achieve this alone. Only a connected infrastructure can deliver the insights needed at the scale of today's challenges.

THE CHALLENGE OF SHARING

For all the promise, Dangermond was candid about the obstacles. The greatest barrier is not technology but culture. "The willingness to share is the key component," he said. Agencies and organizations withhold data for reasons ranging from national security to privacy concerns to institutional inertia. Without trust and openness, the nervous system cannot function.

Esri has sought to make sharing easier through platforms like ArcGIS Online and ArcGIS Enterprise, which provide metadata management, controlled access, and selective sharing. But Dangermond stressed that tools alone are insufficient. What matters most is building trust and shifting organizational culture. Sharing is not about giving up control; it is about enabling collaboration. Unless that shift happens, the broader vision will remain out of reach.

ARTIFICIAL INTELLIGENCE AND INTELLIGENT AGENTS

Artificial intelligence is another force reshaping geospatial, and Dangermond offered a nuanced view.

Esri has already deployed neural networks for feature extraction, teaching machines to recognize roads, buildings, and vegetation in imagery. That work, though valuable, is just the beginning.

The next stage, he explained, involves intelligent agents embedded in GIS. These agents could guide professionals through workflows, assist with documentation, or suggest new datasets to consider. They would augment, not replace, human expertise. By mining geographic data for patterns across time and space, agents could surface insights that even experienced analysts might overlook.





The distinction matters. In a field where professionals may fear being displaced by automation,
Dangermond emphasized that AI is best understood as a companion — a way to make human work more effective and insightful.

ESRI AND THE ECOSYSTEM

Although Esri plays a central role in this vision, Dangermond positioned the company as a facilitator rather than a monopolist. Esri's philosophy, he said, is to build generic software guided by customer feedback, while leaving room for partners to specialize and extend. The result is an ecosystem that includes global giants like Microsoft and Amazon as well as countless smaller firms innovating in their own niches.

The nervous system, in his view, can only succeed if it is open. Proprietary lock-in would undermine the very goal of interoperability. For Esri, the path forward lies in partnership and collaboration rather than control.

THE HISTORICAL ARC

Throughout the conversation, Dangermond placed today's developments in a longer historical arc. Geography and mapping, he reminded us, have always been central to civilization, from the cadastral surveys of ancient empires to the charts of explorers. GIS, in his view, is simply the continuation of that legacy — a way to see, understand, and act at scales unimagined in previous centuries.

What distinguishes this era is the possibility of creating a common language for decision-making. By integrating layers of data into shared systems, GIS provides the framework for governments, companies, and communities to act with greater intelligence. In the nervous system Dangermond envisions, society itself becomes more resilient, capable of responding to crises and planning for the future with clarity.

SYSTEMATIC, LONG-TERM WORK

Despite his optimism, Dangermond warned against the allure of quick fixes. Building the geospatial nervous system will not be achieved overnight. It requires consistent, systematic work: policies, standards, governance, and investment sustained over decades.

The temptation to chase hype must be resisted. The progress that matters will come from steady, collaborative effort. For Dangermond, this patience is not a call for delay but a recognition that lasting infrastructure is built layer by layer, through persistent commitment.

A SHARED RESPONSIBILITY

What made this conversation distinctive was not only the scope of

Dangermond's vision but also his acknowledgment that Esri cannot achieve it alone. At several moments, he paused and noted that help is needed — help from the community, from organizations, from thought leaders and practitioners alike.

That acknowledgment reframes the conversation. The geospatial nervous system is not an Esri project; it is a collective endeavor. The living digital twins he describes will only function if organizations commit to maintaining them. The AI agents he anticipates will only be useful if professionals adopt and adapt them responsibly. The global infrastructure he imagines will only take shape if agencies and institutions are willing to share.

Jack Dangermond has been many things: entrepreneur, innovator, thought leader. But in this conversation, he emerged most clearly as a guide. His vision is both inspiring and demanding. It calls not only for technological progress but for cultural change, patient investment, and a willingness to see beyond organizational boundaries. The nervous system he describes is ambitious, but it is also essential. It is up to the geospatial community to bring it to life.







NEWS RELEASE

September 24, 2025 Contact: Lehmon Dekle, P.E. NCEES Chief Officer of Examinations ldekle@ncees.org

NCEES offering new FS interactive practice exam

NCEES is pleased to announce a new Fundamentals of Surveying (FS) interactive practice exam is now available for purchase through its website.

About the interactive practice exam

The FS exam now has a corresponding 50-question interactive practice exam that better aligns with the computerbased testing format of NCEES exams. The FS interactive practice exam is designed to provide a realistic simulation of the actual FS exam.

Until now, the FS practice exam was only offered in printed and e-book formats with static multiple-choice and alternative item types. The new FS interactive practice exam is offered online and provides options for a timed test, immediate solution reviews, and diagnostics on the number of correct and incorrect answers in each content area.

NCEES also introduced the Fundamentals of Engineering (FE) Vol. 2 interactive practice exams. These practice exams, which join the FE Vol. 1 interactive practice exams launched in 2024, offer a new 50-question practice exam for each of the seven FE disciplines.

Proven to increase pass rates

The interactive practice exams contain questions that are representative of those on the actual FE and FS exams, providing examinees with a more effective exam prep resource.

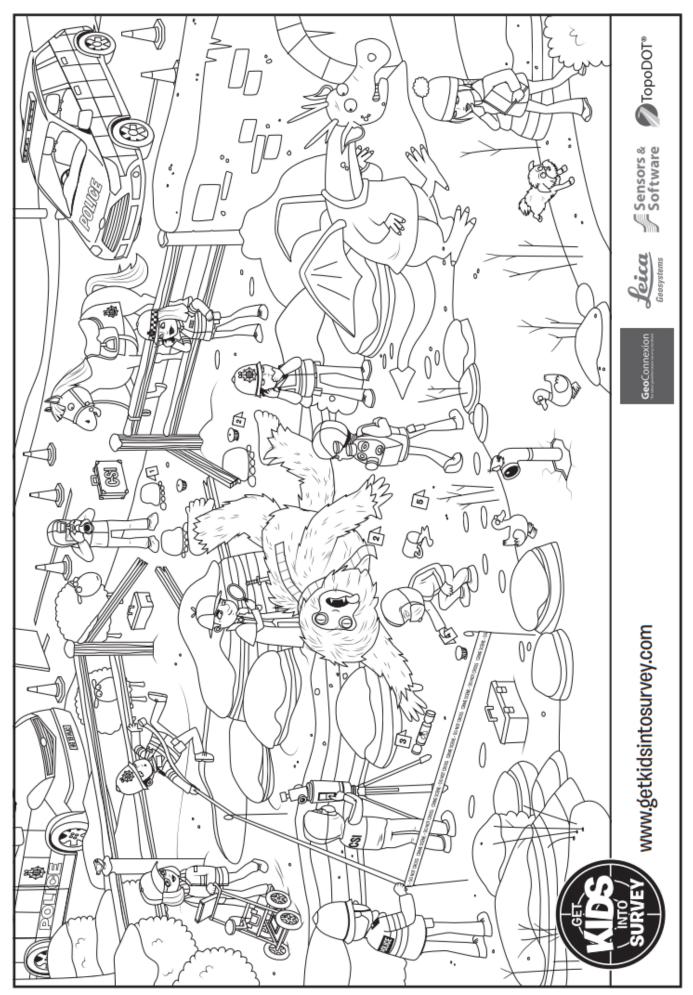
NCEES Chief Officer of Examinations Lehmon Dekle, P.E., explained, "NCEES has tracked pass rates for examinees who purchased the FE interactive practice exams and compared them to those who did not. We find that those who purchase an interactive practice exam have measurably higher exam pass rates. The difference is even higher for repeat examinees, improving some FE exam pass rates by up to 10 percent."

For more information or to purchase an FE Vol. 1, FE Vol. 2, or FS practice exam, create or log in to your MyNCEES account at neees.org.

ABOUT NCEES

The National Council of Examiners for Engineering and Surveying is a nonprofit organization made up of engineering and surveying licensing boards from all U.S. states, the District of Columbia, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. Since its founding in 1920, NCEES has been committed to advancing licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the U.S. public.

NCEES helps its member licensing boards carry out their duties to regulate the professions of engineering and surveying. It develops bestpractice models for state licensure laws and regulations and promotes uniformity among the states. It develops and administers the exams used for engineering and surveying licensure throughout the country. It also provides services to help licensed engineers and surveyors practice their professions in other U.S. states and territories. For more information, please visit neces.org.



THINGS CHANGE

ROADS AND THE SHIFTING USE DOCTRINE

hat rights do owners of real property have in regard to the streets abutting their land? On this theme we will look at three court cases spanning a century of transportation in California. Although they rely on different legal theories, all involve the relationship between rights-of-way and private property. In these cases, the use of roads evolved to meet changing needs—at times to the dismay of the neighbors.

Venice of America

Venice is a colorful and quirky beachside community in Los Angeles that was incorporated in 1904 as a distinct city (under a prior name) (Ingersoll, 1908, p. 260). Instead of roads to access its residential lots, the Venice subdivision created a system of canals allowing ingress from the ocean. (Among the canals' many movie appearances, Val Kilmer climbs a canal-side tree to woo Meg Ryan on the balcony of her Venice bungalow in The Doors.) Harking back to the ancient Italian seaport, this planned development was marketed as the Venice of America.

The canals were delineated as lots on the Venice tract map (e.g. Lot

"J" – Altair Canal). In 1912, the developer, the Abbot Kinney Company, deeded those canal areas to the city (by then renamed Venice) on condition that they "shall be used ... solely and only for permanent waterways and canals, free to the public forever." The city maintained the canals for boating, recreation, and transportation, and, in 1925, the city of Los Angeles assumed this governmental role through annexation when Venice ceased being an independent municipality.

The Venice canals endure, but now you'll find fewer of them than once existed. The loss of canals coincided with that rapid social current known as the California car culture, which gives context for the 1929 state Supreme Court case, *Wattson v. Eldridge*, 207 Cal. 314. The case capped a decade of rise in the number of cars in Los Angeles and corresponding drop in streetcar ridership (Elkind, 2014, p. 6).

Amid a growing demand for improved streets, the Wattson case paved the way for some of the canals to be filled in and surfaced with concrete.

The Lawsuit

Wattson arose out of a public works contract to convert the canals into streets. Even though the contractor Wattson's construction proposal had been duly selected by the city after a public bid process, the city's Board of Public Works refused to honor the contract award based on "serious doubt as to whether these canals constituted public streets." (272 P. 1095 (Ct. App. 1928).) The contractor sought a writ of mandate (i.e. a court order) to compel the city to execute his contract.

The Court of Appeal denied the contractor's writ petition. In light of the "unambiguous [1912] grant" ("permanent waterways") and the subsequent conduct of both the city and those who availed themselves of the canals, the court said: "[I]t is impossible for us to reach any conclusion other than that there has been a dedication to the public for use as canals."

As to whether the city had the power to change this use, the court was vehement that dedicated land "cannot be put to other public use inconsistent with ... the original dedication." Although it recognized



Photograph ca. 1930s of Venetian gondola riders at Lion Canal bridge, Venice, CA. (Image 9240). SECURITY PACIFIC NATIONAL BANK COLLECTION (TESSA.LAPL.ORG)

the canals were certainly "watery ways of transportation," the appeals court found that "they are chiefly used as places of amusement and recreation." If "destroyed," the canals "instead ... would be filled with a wriggling mass of noisy and offensive smelling vehicles."

"A Canal Is a Highway"

The California Supreme Court reversed. The Court acknowledged that the canals "must be used in conformity with the terms of the

dedication," saying, "With this rule we have no quarrel." But by broadening the "primary object and purpose" of the dedication, the Court in Wattson reached a different conclusion than the court below had.

Calling its interpretation "more conducive to the public good," the Court held that the original canal dedication was "merely intended ... to secure to the public generally some manner or means of ingress and egress." Accordingly, to respond to modern demands, any new usage of the canals need only be "consistent"

SANTA ANDRICA

SILENDIS ANDRE DE

SUENDIS ANDRE

Detail from Official Map by Order of the Board of Supervisors of Los Angeles County, prepared by Valentine James (V.J.) Rowan, Surveyor; published by Schmidt Label & Litho. Co., 1888. Venice was established on part of the Rancho La Ballona, a Mexican land grant. LIBRARY OF CONGRESS

with their character and purpose as public highways." By this reasoning, paving over the canals "constitutes but a new adaptation of their original dedication."

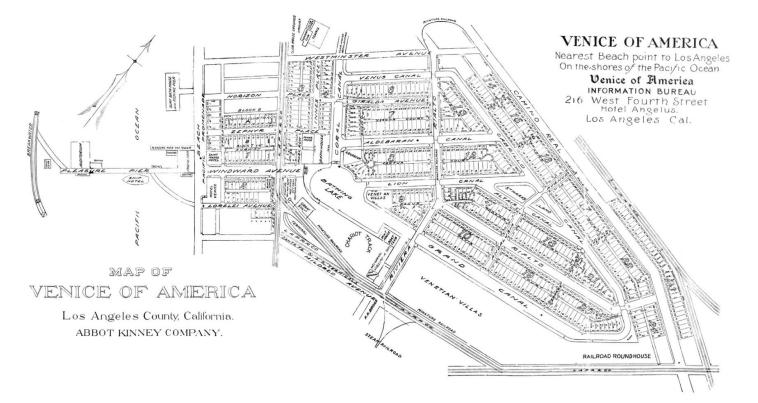
What practice pointer can be gleaned from Wattson? Lawyers often draft terms that explicitly direct how legal documents should be interpreted (a common example in contracts is: "not construed against the drafter"). With the benefit of hindsight we can see that a strict interpretation clause might have helped preserve the canals. Consider this: This dedication for boating and recreational purposes shall be construed narrowly to ensure the continued use and enjoyment of these waterways to the maximum extent possible.

The Blue Line

In the 1980s, Los Angeles embarked on a new course when it broke ground on an ambitious public transit system that would include both light rail and subway lines. The first leg to open was the Blue Line, a commuter train between L.A.'s Union Station and Long Beach (Elkind, p. 111).

Running through Downtown where today it passes Crypto.com
Arena, the Blue Line took over portions of Flower Street.
Accommodating the at-grade tracks meant losing two lanes of traffic and the street becoming one way. On the railway side of the street buildings front on a preexisting narrow sidewalk, now edged with a railing to separate pedestrians from the tracks.

In Brumer v. Los Angeles
County Metropolitan Transportation
Authority, 36 Cal.App.4th 1738
(1995), a property owner claimed this
change infringed on his right to have
customers drive up and park along the
curb in front of his commercial
building. The trial court ruled against
him, and the Court of Appeal
affirmed. We will first discuss the basis
of the owner's claim, followed by the
court's reasoning that led to its
decision.



Map of Venice of America, 1905, by Abbott Kinney Company. LIBRARY OF CONGRESS

Right of Access

The plaintiff in Brumer alleged his property had been denied all vehicular access to Flower Street and that this was a "taking" of property under the Constitution, entitling him to compensation. (US Const. amend. V.) Although his property suffered no square footage loss—as might occur in the case of a street widening—the law recognizes a property right in the form of an "easement of access." The court explained, "This easement consists of the right to get into the street upon which the landowners' property abuts and from there, in a reasonable manner, to the general system of public streets" (citing the state Supreme Court in Bacich v. Bd. of Control, 23 Cal.2d 343 (1943)). Impeding such an easement could result in a taking.

However, not every interference with access to the street amounts to a taking. To prevail in such a claim, the owner must demonstrate "a substantial impairment of his right of access to the general system of public streets." Satisfying this legal standard requires a fact-based inquiry.

The court discussed a continuum of impairment of access cases. At one extreme are mere traffic regulations, such as "placing permanent dividing strips which deprive an abutter of direct access to the opposite side of the highway, painting double white lines on the highway, or designating the entire street as a one-way street."

These examples are plainly within a city's police power and invoke no constitutional right to compensation, even though they "may impede the convenience [of driving], and may necessitate circuity of travel." The court said that any resulting "loss of business or of value of the property ... is simply a risk the property owner assumes when he lives in modern society."

At the other extreme, courts have found substantial impairment of access to properties where, for example, the city built a raised viaduct on the abutting road (Goycoolea v. City of Los Angeles) and where reaching a property was effectively "cut off by [a freeway] off-ramp and ... nine-inch-high concrete divider" (Blumenstein v. City of Long Beach).

No Actionable Taking

The characteristics of the property in Brumer worked against the owner's claim. The lot was situated at the corner of Flower Street and Venice Boulevard (an east-west thoroughfare



Los Angeles Union Station, built 1939. Art Deco, Mission/Spanish Revival styles. COPYRIGHT 2021 JOHN BARE PHOTOGRAPHY

that leads to Venice Beach). In fact, the property's ample Venice frontage (150 feet) was three times the distance along Flower.

In addition, at the rear was an

alley, which, as with the Venice Boulevard property line, the railway left untouched. Having public roads on three sides—and no effect on pedestrian access—lessened the proportional impact of the Blue Line on the property overall.

The court concluded that any interference with access in Brumer was not substantial. It reasoned that "the net effect on vehicular access to plaintiffs' property is no different than if the city had simply exercised its police power to prohibit all street parking on Flower Street."

Brumer teaches that although landowners enjoy a right of access, the standard to prove a taking of that right is a high one. It is a truism that things change, as in the city's pursuit of public transit. It follows that an abutting owner "cannot demand that the adjacent street be left in its original condition for all time."

Rails to Trails

Our final case involves not a public road but a right-of-way easement held by Southern Pacific Railroad. (Toews v. United States, 376 F.3d 1371 (Fed. Cir. 2004).) In Toews, when the government authorized an interim use of the easement for hiking and biking under the federal rails-to-trails law, landowners claimed a right to



Looking north on Flower Street at Los Angeles Metro Pico Station. At right, a sidewalk lies between buildings and the track. *PHOTO BY ANDY CHO*

compensation under the Fifth Amendment because such uses were beyond the scope of the easement encumbering their lands. The trial court agreed, and the U.S. Court of Appeals affirmed.

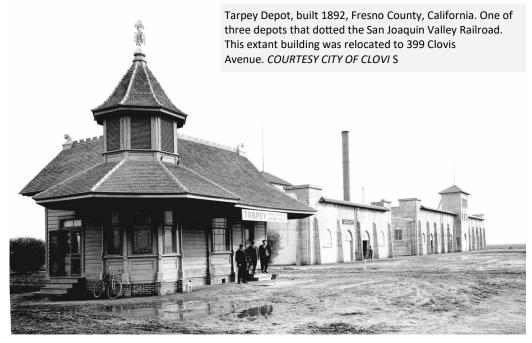
The segment of track in Toews that the railroad ceased operating was its Clovis Branch, which had transported freight in Fresno County, California, for a century. Southern Pacific and the city of Clovis entered into an agreement which allowed the city to develop the right-of-way with pedestrian, equestrian,

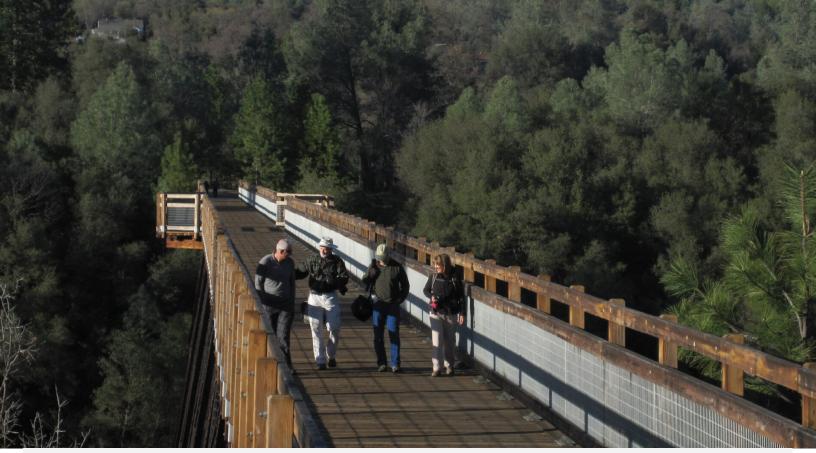
and bike paths "in the near term," while contemplating "light rail or other transit modes" in the future.

Congress enacted the National Trails System Act in response to a sharp decline in the use of trains in the last century and national security concerns over the correlated abandonment of railroad property (because once the country's freight rail network is gone, it's gone). (16 U.S.C. § 1241 et seq.; Ferster, 2006.) The law was designed "to preserve for possible future railroad use rights-of-way not currently in service and to allow interim use of the land as recreational trails." (Preseault v. I.C.C., 494 U.S. 1 (1990); see Wendy Lathrop's column on rails-to-trails in TAS, July/Aug. 2004.) Los Angeles is a case in point for disused rail lines experiencing a resurgence: the Blue Line follows the historic corridor of the city's defunct early twentieth-century streetcar system (Elkind, p. 109).

Fee or Easement

In Toews, the original 1891 deed granted a "Right of Way for [the grantee's] proposed Railroad over [land] owned by me ... and for its tracks, turntables, depots, water tanks and other appurtenances."





Weber Creek Bridge, built 1903 for Placerville & Lake Tahoe Railway, and now part of the El Dorado County, California rail trail. PHOTO COURTESY FRIENDS OF EL DORADO TRAIL

Analysis of a right-of-way begins with the nature of the right and the scope of the authorized use. Right-of-way is an ambiguous term in that it doesn't distinguish between a fee simple estate (complete ownership) or a lesser interest in an easement (the right to use another's land). In both cases, the term describes the right "to pass over land" or, generally speaking, the strip of land itself. (Black's Law Dictionary (6th ed.).)

The court in Toews discussed the presence of this ambiguity in another railroad case, Preseault v. U.S., in which an 1899 conveyance "was obscure" and left "real doubt [as to] what was conveyed and what did it mean." But in Toews, no such doubt existed. The court said, "The terms of the deed ... are explicit, [and the] trial court properly found the grant to constitute an easement."

Shifting Use Doctrine

Since the railroad right-of-way was a mere easement, the "defining issue" of the case was its scope. As with the canal dedication in Wattson v.
Eldridge, the permitted uses of an easement are limited by the grant.
The court in Toews said: "It is elementary law that if the Government ... authorizes the use of ... an existing railroad easement for purposes and in a manner not allowed by the terms of the grant of the easement, the Government has taken the landowner's property for the new use."

To argue that the railroad easement did embrace the trail use, the government "heavily cited and relied upon" Wattson to illustrate the "shifting use doctrine." Under this concept, which in Wattson had enabled a canal to be turned into a paved street, the court relayed the government's position "that a railroad's use of an easement may transmogrify into the public's use as a recreational trail."

Although the court in Toews accepted the holding in Wattson, it reasoned that here the uses of the easement (for a railroad or a trail) were too dissimilar. The court held that an "easement defined as one for railroad purposes is not stretchable into an easement for a ... trail and linear park for skateboarders and picnickers, however desirable such uses may be." The court said the government has the power to create such parks, "[b]ut the private property interests taken are not free"; they require just compensation.

The Future

We have read about dedications, access, and easements. In addition to each case focusing on a particular use of right-of-way, the thread running through them all is that things change. In its explanation of the shifting use doctrine, the court in Toews couldn't resist the idiom that the lot owners in Wattson, who had hitherto sailed skiffs to their Venice homes, "were left high and dry."

Of course it is uncertain how the use of transportation corridors might change in the future. When change occurs, the legal issues discussed here may come into play. In considering the possibility of rail service returning to Clovis in "the distant future," the court in Toews was expressive: It will depend on "economic and social change, and a change in government policy by managers not yet known or perhaps even born."

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