PHILIP J. MEIS, P.E.

UTILITY MAPPING SERVICES, INC. PRINCIPAL ENGINEER / PRESIDENT

Phil has 26 years of utility engineering (UE) experience and co-founded UMS in 2002 to execute UE as a rigorous discipline involving geophysical, geodetic, and engineering expertise. He's currently:

- Chair for ASCE 75 *Standard Guideline for Recording and Exchanging Utility Infrastructure Data* (initiating the standard development effort in 2011)
- 2020-21 Chair for the ASCE UESI Utility Risk Management Division
- Committee member for the ASCE 38-22 revision
- ASCE Liaison for the Open Geospatial Consortium Model for Underground Data Definition and Integration (MUDDI) Standard
- Committee member and former Chair of UESI's SUE and Utility Investigations Committee
- Associate member of UESI's Utility Coordination Committee
- TRB Utilities (AKD60) Committee Associate Member
- An instructor for the ASCE UESI Utility Investigation School

Phil recently co-authored the July 2020 NCHRP report *An Impact and Value Analysis of Requiring Geospatial Locations for Utility Installation As-Builts*. He regularly presents utility data acquisition and risk management practices to audiences nationwide in the U.S. and Canada.

Phil has been a member of the ASCE Construction Institute for over 20 years, and the Utility Engineering and Surveying Institue since it was chartered.

EDUCATION

M.Sc., Geophysical Engineering, Colorado School of Mines, 1986

B.Sc., Industrial Engineering, Iowa State University, 1983

Phil has managed or directed over 1,200 utility engineering projects across the nation, including several major pipeline projects involving high pressure natural gas transmission, liquid natural gas, and water transmission.

Phil previously worked for the Federal government as a NOAA Corps commissioned officer assigned to the National Ocean Survey and National Geodetic Survey divisions. He later served as a construction field engineer for Washington Corp., and a principal engineer and project manager for Harding ESE, A MACTEC Company, (now Wood), for projects including several interstate reconstructions and highway interchange and round-a-bout designs.

My goals as a UESI BOG Member are to promote and enhance:

- The power and prestige of the UESI, including assertion as a key leader for providing sound engineering leadership and guidance with respect to new utility infrastructure installations and technologies that address societal, environmental, resiliency, and strategic needs while holding the public welfare paramount over all other interests.
- Standards and practices that enable predictive and proactive engineering to safely and expeditiously deliver pipeline and civil infrastructure projects.
- Collaboration with the ASCE Construction Institute.
- Recruitment from and engagement with the surveying community.
- Revenue generation through courses on the new ASCE 75-22 and newly revised ASCE 38-22 standards.

I have a long history of involvement with the ASCE Construction Institute (CI), participating and presenting at many CI Summits and several CI Texas Chapter meetings at the invitation of Katerina Lachinova, Director of the CI. My participation has been to raise awareness and present the value reaped from utilizing ASCE 38 and performing utility engineering during project development for a variety of alternative project delivery methods. In 2012, under guidance from Jim Anspach, I developed the needs statement for a national utility "as-built" standard, and subsequently formed and launched the committee and Chaired the effort to develop the new "Standard Guideline for Recording and Exchanging Utility Infrastructure Data" now known as ASCE CI/UESI Standard 75-22, which is a 3D, digital standard that already has been adopted (under an MOU prior to publication) by the Colorado and Montana DOTs. ASCE 75 will likely be adopted nationwide and solves the very problem for which ASCE 38 was developed to address – poor, incomplete, and non-standardized record data on utilities. I also served on the ASCE 38-22 revision committee and have given presentations and workshops on both standards to many audiences at industry conferences (and webinars) across North America. I am currently serving as the ASCE liaison for the Open Geospatial Consortium (OGC) Model for Underground Data Definition and Integration (MUDDI) development, which, under my guidance, has adopted ASCE 38 and 75 as key input. This means ASCE 38 and 75 data will seamlessly flow into a myriad of CADD, analytic and visualization applications developed and maintained by OGC compliant software vendors (e.g., Autodesk, Bentley, ESRI, etc.).

I also have been very active with UESI, participating on the Utility Risk Management Division (URMD): 1) Utility Investigation and SUE subcommittee as the initial chair and later as a subcommittee member; 2) Utility Coordination (UC) subcommittee; and as the URMD Vice Chair from 2018-20, and Chair from 2020-21. During this period our Utility Investigation and SUE subcommittee was able to develop a white paper on proper utility investigations, and this was subsequently turned into a successful webinar. We have also reviewed a variety of utility investigation technologies and methods and promoted implementation of viable technologies for utility engineering needs.

I've co-authored utility engineering research including the SHRP2 R15B *Identification of Utility Conflicts and Solutions*, and effort to standardize and teach usage of conflict matrices. I also co-authored the recent NCHRP 20-07, Task 418 *An Impact and Value Analysis of Requiring Geospatial Locations for Utility Installation As-Builts,* which presents the value of implementing and utilizing the new ASCE 75 standard.

During this past year I was very active in an effort to promote inclusion of ASCE 38 and 75 standards within the language for the massive infrastructure bill that was passed by Congress in 2022. I helped author a 1 and 2 page brief that was shared with Senator Schumer's staff involved with drafting the bill. Although specifications for ASCE 38 and 75 were not included in the bill, awareness of these standards and UESI was raised to a new level with people associated with government affairs at both ASCE and Senator

Schumer's office.

My unique and rather diverse engineering background has serendipitously situated me as a well-rounded and capable participant for the UESI BOG.

- 4 years of very good general engineering undergraduate education at Iowa State (Tau Beta Pi member);
- 3 years as a research assistance while earning an M.S. in geophysical engineering from the Colorado School of Mines;
- 4 years active duty as a NOAA Corps commissioned officer and engineer assigned to the National Ocean Survey and National Geodetic Survey divisions conducting complex geodetic, hydrographic and geophysical surveys;
- 2-years as a data systems manager for a mining engineering consultant;
- 4-years as a field and geotechnical engineer for a major construction firm;
- 7-years as a design civil engineer and project manager on large transportation design projects; and
- 20-years as an owner of a utility engineering firm practicing and leading in the development and implementation of advanced geophysical investigative methods, data management technologies, 3D modeling and design, conflict analytics and resolution engineering, innovative contracting methods, and lifecycle management practices that aggressively address and resolve the utility conundrum.

My unique background, experience, interests, and enthusiasm will serve UESI well.