PLSC

## Vote Yes on SB25-019- Modernization of the State Plane Coordinate System

**Sponsors:** Sen. Rich, Sen. Snyder, Rep. Marshal, and Rep. Soper

**Background:** The National Geodetic Survey (NGS), founded in 1807 by President Thomas Jefferson, is the Nation's first civilian scientific agency. Over the years, its role expanded from coastal surveys to include interior mapping. In 1970, NGS became part of NOAA, managing the National Spatial Reference System (NSRS) — the foundation for the State Plane Coordinate Systems (SPCS) used for surveying, engineering, and mapping. These systems ensure precise measurements for infrastructure projects, property boundaries, and more.

Colorado's State Plane Coordinate System, first established in 1927, has been periodically updated to keep pace with advancements in technology and adhere to new datums published by the National Geodetic Survey. Over time, as new datums have been published surveyor data has become more accurate. For example, the 1983 State Plane Coordinate system was an improved accuracy to 1 meter compared to the 1297 State Plane Coordinate System which was accurate up to 10 meters. The latest update, the North American Terrestrial Reference Frame of 2022 (NATRF2022), improves accuracy to 0.01 meters and will support a new State Plane Coordinate System of 2022 (SPCS2022).

**What does the bill do?** The proposed legislation would update Colorado's statutes to include the 2022 standards and acknowledge future datums developed by NGS, eliminating the need for further statutory revisions. The legislation does not require surveyors or other individuals who use these tools to automatically adopt the new 2022 standard, but rather provides another tool to more accurately do their work. Further, the legislation does not impact any surveyor who is using a previous version of the Colorado State Plane Coordinate System (1927 or 1983). Importantly, it does not mandate the use of the new system, ensuring flexibility for surveyors and engineers.

**Who uses the State Plane Coordinate System Datums:**

- Geodesists and surveyors use datums to create reference points for floodplain maps, highway surveys, property boundaries, construction surveys or other work requiring accurate coordinates that are consistent with one another.
- Engineers designing large scale projects such as highways, transmission lines, etc.
- State, County and local governments for assessments, zoning, large projects, etc.

**Benefits of this legislation include more efficient infrastructure projects, reduced distortion in measurements, and the ability to adopt cutting-edge technology without disrupting current practices.** Property boundaries remain unaffected by this statutory change. This bill ensures Colorado's coordinate system remains a reliable tool for professional land surveyors, while adoption of the new system remains optional.

## Vote Yes on SB25-019 to modernize Colorado's State Plane Coordinate System

Thank you for your consideration, Professional Land Surveyors of Colorado (PLSC): Scott Thompson PLSC Legislative Chair. Please contact Steve Balcerovich, PLSC Contract Lobbyist (720-351-2007); and Tim Coleman, PLSC Contract Lobbyist (303-242-9270) if you have questions regarding the legislation.