Boundary Surveying and Topographic Mapping Services

Since 1880, James W. Sewall Company has conducted boundary surveys and produced topographic mapping for private and commercial landowners, business and government organizations, and utilities. With vigorous quality standards for project execution and professional staff, Sewall has delivered highly accurate products using a range of technologies from conventional surveying tools to aerial photography and Global Positioning System (GPS) technology. Traditionally based in the Northeast, Sewall now offers professional surveying services to a broad geographic area that includes selected states in the South and Northwest. Sewall surveyors are currently licensed to practice in Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, Kentucky, Tennessee, Florida, and Washington. Their survey work is supported by an experienced research staff who perform title searches and a technical staff who collect and process survey data for drafting final plans. With over 120 years of surveying and mapping experience and 50 years of acquiring aerial photography, Sewall maintains an extensive archives of records, maps, and photography at headquarters in Old Town, Maine.

BOUNDARY SURVEYS

Accuracy in boundary surveys is a critical component to establishing proof of ownership and to resolving boundary issues. Trained to utilize the most advanced equipment and thorough methods of property delineation, Sewall surveyors are committed to delivering highly accurate and timely service to landowners and to the businesses that support them. To initiate a standard boundary survey, our staff carefully researches deeds and other historical records to identify previously established property lines and any easements or regulatory limitations that affect land use. In addition to county registries of deeds and other public agencies, we reference our own survey archives, which include field books, original field notes, boundary plats, boundary maps, deeds, and survey reports dating back to the 1800s. In the field, our staff uses such tools as total stations with electronic distance measuring (EDM) devices and GPS to survey the property, determining parcel metes and bounds, and to establish monuments at all corners. The coordinate data, once collected in the field, are transferred electronically to CAD drafting software for the drafting of a property plan or map. For a boundary survey, Sewall deliverables include a...
Boundary surveys collected with conventional equipment showing selected planimetric detail (above) and topographic data (below).
written description of the property, a written report of surveyor findings, and the map, which indicates boundary lines, easements, and salient planimetric features, such as roads, bodies of water, utilities infrastructure, and survey monuments.

In addition to boundary surveys, Sewall also conducts title surveys that meet the stringent standards adopted by the American Land Title Association and the American Congress on Surveying and Mapping (ALTA/ACSM). The ALTA/ACSM survey is generally used for large commercial properties that require title insurance and for some private landholdings. Our staff has worked successfully with a wide range of commercial enterprises including engineering firms, architects, attorneys, realtors, banking institutions, insurance companies, and many others to meet their unique, specific needs.

TOPOGRAPHIC MAPPING

To generate accurate contours for engineering site layout, route surveys, and utility mapping, Sewall uses traditional and advanced technologies, from conventional tools such as total stations with EDM to aerial photography, photogrammetry, and geodetic-grade GPS. Using conventional tools, Sewall surveyors collect elevation and feature data in the field, which are then processed and transferred to CAD software for drafting plans.

For larger properties, Sewall acquires aerial photography and establishes survey control in the field for the development of accurate mapping. Ground control, a set of fixed points on the ground for which precise horizontal and vertical coordinates can be determined, enables Sewall certified photogrammetrists to position and correlate map features from aerial photography accurately and to tie the mapping to an established horizontal and vertical coordinate system, or datum. Horizontal control surveys establish the scale of a map and its grid coordinate system; vertical control surveys define the elevations for creating contours.

Sewall brings to the mapping process over 120 years of experience using conventional survey tools and over 50 years’ experience acquiring and utilizing aerial photography to develop maps for utilities, municipal government, and the forest industry. With all in-house equipment and a staff of aerial photographers, pilots, certified photogrammetrists, GIS analysts, and mapping technicians, Sewall’s surveyors draw upon extensive company resources for any given project. Sewall develops map products in a range of hard copy and digital formats, including AutoCAD, Intergraph GeoMedia, and ESRI ArcInfo.

For more information on Sewall’s services in boundary surveying and topographic mapping, please contact Vice President of Engineering Scott Graham, PE, at (207) 827-4456; Email: scott.graham@jws.com
# SEWALL SURVEYING SERVICES

## Boundary Surveys
- Record research
- Deed analysis
- Zoning analysis
- Field data collection
- Drafting (AutoCAD)
- Report preparation
- Boundary conflict resolution
- Expert testimony
- ALTA/ACSM title surveys
- Subdivision surveys

## Topographic Mapping
- Field data collection
- Engineering site layout
- Utility route surveys
- Infrastructure mapping
- Hydrographic surveying
- Drafting (CAD services)
- Flood zone determination
- Aerial photography
- Vertical and horizontal control with GPS
- Mapping (AutoCAD, Microstation, ArcInfo)

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#### SEWALL
JAMES W. SEWALL COMPANY / Since 1880

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