

By Ronald L. Williams, SR/WA



Role of the Professional Land Surveyor

An Old and Honorable Profession

Land surveyors are members of an old and honorable profession. The process of locating, identifying and describing land has been of critical importance since the dawn of history. The earliest records of the Egyptians, Chinese and Romans contain references to methods for establishing and re-establishing property corners and boundaries. A reference in the *Old Testament*, (Deuteronomy 27:17), states "Cursed be he that removeth his neighbor's landmark."

Land has always been considered one of the most stable and valuable commodities and its ownership and transfer has been the subject of extensive regulations. Because of the many methods of descriptions now in use and the historical variations in original surveys, one must have an understanding of the types of descriptions acceptable for use in land transfer documents. Various methods and forms of property descriptions are in use throughout the country: metes and bounds, the US rectangular grid or public lands survey, the state coordinate system, and many others.

Surveying is, by definition, a science of applied mathematics. Land surveying does not include surveys for engineering stakeout for construction of buildings, highways, bridges, airports, utility lines, and the like. However, land surveys are usually needed in conjunction with such projects.

A land surveyor is not merely a technician with a tape measure. He or she is a person not only trained in mathematics, but is also learned in engineering and the law. The surveyor is required to make decisions based upon training, education, experience and professional judgement.



A good knowledge of the specific laws and principles that govern boundaries and general real estate is also required.

The practice of land surveying is based upon law and is not an exact science. The surveyor must be familiar with the legal terminology pertaining to ownership, rights, duties, zoning, acquisition, contracts, mortgages, deeds, etc. Specific boundary law knowledge is required for evaluating evidence and the procedures for boundary line analysis must be followed.

The surveyor is a detective with measuring skills, whose responsibility it is to discover the intent of the original parties at the time the property description was first written. The surveyor must, by law, meet specific standards and pass an exam administered by the state in order to be licensed as a Professional Land Surveyor and be qualified to perform property surveys.

The Surveyor and The Lawyer

Many law schools overlook much of the legal principles that are important in land surveying. Much of the formal education for land surveyors also neglect training in areas of the law. It is clear then, that these two professions need to know more about each other in order to work more closely together and communicate on a professional level.

There are four areas in which surveyors should work with lawyers: perform land surveys for a real estate transactions, act an expert witness in lawsuits, serve as a source of information about local land, and assist in interpreting land descriptions.

Surveyors' Obligations To Clients

A surveyor's first obligation is to the client. All communications between the surveyor and the client are confidential, unless required otherwise by law. The client determines the extent of the survey, which may be to have a complete survey or only a part thereof. All services and work performed should meet or exceed the minimum standards for the type of survey ordered. The client should be provided with an accurate survey or resurvey of their property shown on a clearly legible plat. The plat should include property lines and corners, fence lines, encroachments, easements and improvements (if requested).

To the Public

A certain trust and duty to the public is required of a Professional Surveyor. The professional surveyor must accept liability for the services provided. The surveyor acts as a quasi judicial figure, who arrives at a solution

that fairly and impartially protects the interests of all parties, not just the client, concerned with that property line.

To the Profession

A surveyor's obligation to the profession is to only undertake assignments for which he is qualified by reason of education or experience to perform. He shall not affix his seal or signature to any plan or document dealing with subject matter for which he is unqualified.

General Land Surveying Principles

Although the procedure for most surveys is similar, the following procedure is most pertinent to a metes and bounds land survey.

Obtain Records. Most surveys are, in fact, resurveys of all or part of a track of land that has been previously surveyed or for which, at least, a property description has been prepared. Courthouse research is usually the first step in obtaining information on the property to be surveyed.

The surveyor's duty is to perform a search of the property description rather than a search of the title. After obtaining the names and deed references for the subject and adjoiner properties from tax maps and files in the Assessors office, the surveyor reviews the actual deeds and any plats recorded in the County Clerks Office. The research of the description is not confined to the subject parcel, but rather involves all parcels that are contiguous with the subject. The search of the adjoining parcel descriptions and plats determines if they call for the same points as the subject deed. Additional relevant information is obtained from any other information source available. Inadequate or incomplete research will undoubtedly result in problems.

Usually a rough plot of the subject property and adjacent properties, based on deed information, is performed to establish a general relationship between all common corners, if possible. A mathematical closure of the subject parcel is performed to determine the accuracy of the bearings and distances shown between the corners called for in the subject deed. The amount and direction of this closure is an indication of the quality of the property description.

Many times title commitments and reports are furnished to the surveyor to help in the performance of the survey. Title commitments set forth certain conditions, which must be met before the insurance company will issue a title insurance policy. The title report is an



abstract of the subject property usually showing rights-of-ways, easements, chain of title and other reservations affecting the property.

Field Investigation and Records. A field reconnaissance survey is generally performed, to obtain as much information as possible to identify evidence of corners and other property line information. Contact with the owner of the subject parcel and all adjacent property owners

helps secure input as to possible location of corners or other called for points. After reconnaissance, a complete field survey will be made to locate and identify all information necessary to complete the survey.

Plat of Survey. A plat, showing the results of the survey is then prepared. The surveyor and client should reach agreement as to what improvements are to be shown. It is usual to locate dwellings,

outbuildings, driveways, sidewalks, visible utilities and (sometimes) large trees or bushes. This information will be of benefit to any future surveyor in finding the monuments.

Any encroachments onto or from the surveyed property should also be shown on the plat, along with the amount of encroachment. This information is especially important if there are building set-back lines. Set-back lines may be from the property line, the street right-of-way line, or from some other specified line.

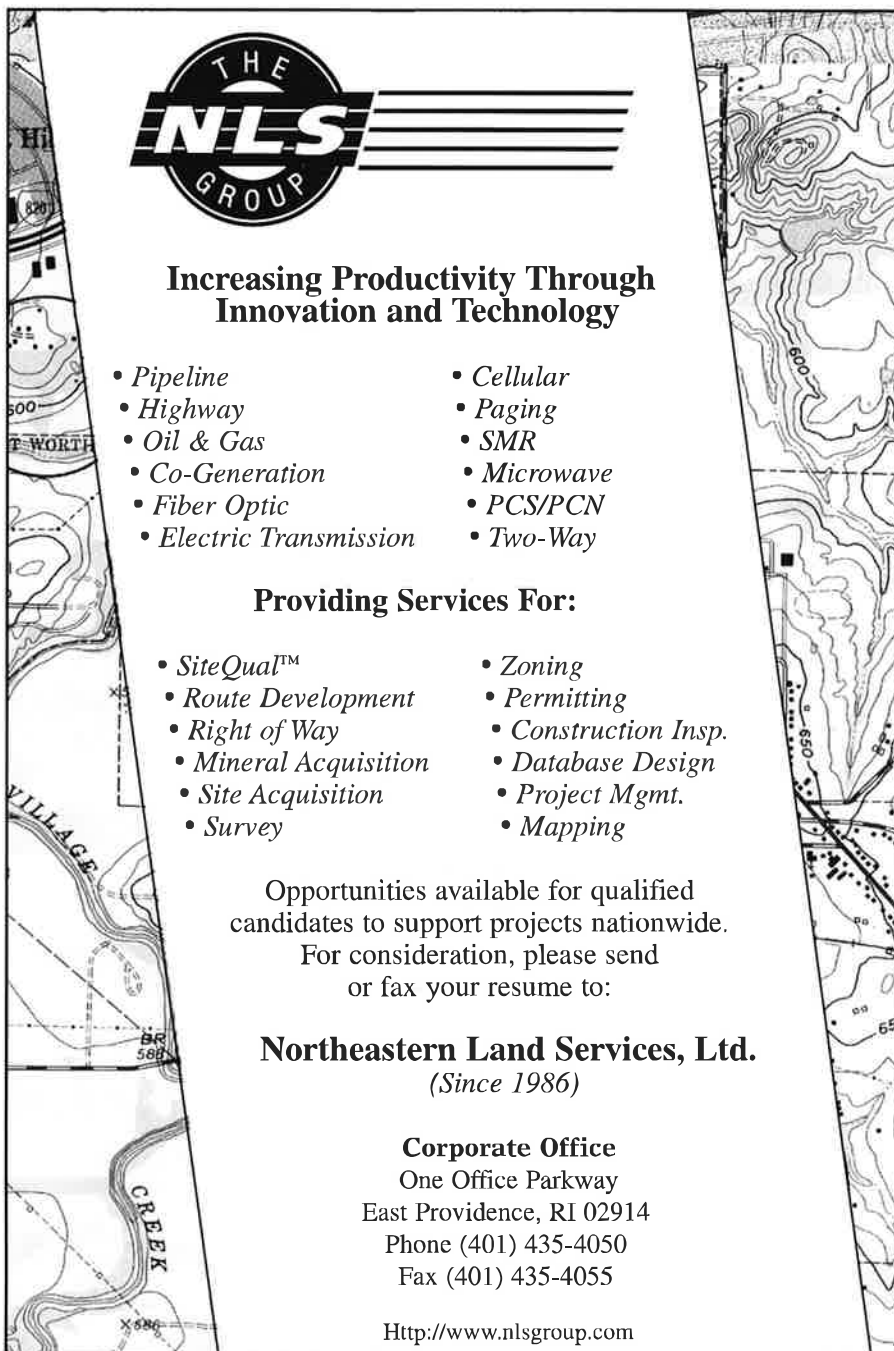
Many states have a law that no plat or map used in real property transfer shall be filed by any county clerk unless sealed by a Professional Surveyor.

Property descriptions. The property description is the portion of the land transfer document that describes the extent of a particular parcel. The purpose of a property description is to precisely define and describe the land to be sold, acquired, leased, taxed, etc. Its objective is to describe the land area in sufficient terms to enable a competent person, having no familiarity with the land, to locate the boundaries of the tract by the proper interpretation of legal and surveying principles.

Care must be exercised to avoid language in the description that is broad or general in scope. Rather than describing rights as being "over," "through," or "across," it is preferred to give specific locations referring to well known points. References to northerly, easterly, south-easterly, etc., should not be used. Instead, a definite bearing and distance should be specified. The description should be mathematically and physically accurate.

A description for a property conveyance can, in fact, go beyond the land surface to describe a three dimensional property when the intent is to convey in limited vertical dimensions. All doubt should be removed as to the extent of the conveyance.

Report of Survey. If problems or questions arise from the survey, a Report of Survey should be prepared, informing the client as to the problem and what methods, information sources, and legal



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precedents were used to perform the survey. This item of work is of ten overlooked by the surveyor. The purpose of the report is to advise the client of how the survey was made or what weight was given to conflicting evidence.

The report should show any overlaps and gaps and how they were resolved. The surveyor cannot solve all overlaps or gaps. Obviously, the value of the property, client's willingness or ability to pay, etc., dictates the amount of time that can be devoted to solving these problems.

Recap

Land surveyors have been a part of history since the earliest times and are an essential part of the land transfer process. The surveyor must interact and provide a service, keeping in mind the obligations to the client, the public, and the profession. The process followed is to obtain and research all available pertinent records, perform a field investigation, prepare a plat and property description, and prepare a report of the survey.

If the parties at odds over a boundary dispute cannot enter into an agreement, the land surveyor cannot establish corners or property lines. The land surveyor renders only a professional opinion based on the analysis of boundary evidence. The surveyor functions as a detective, obtaining facts and evidence as they pertain to the subject property lines and corners, and then functions as an expert witness in a court of law and the court must ultimately make the final decision. ■

Ronald Williams is a Registered Professional Engineer in three states and a Registered Professional Surveyor. Mr. Williams manages a regional office for a consulting engineering firm specializing in highway design, water treatment and distribution and wastewater collection and treatment projects. He has more than 35 years experience in engineering design, construction activities and right of way work. Mr. Williams is a Past International President of IRWA, has taught many IRWA courses and has been involved in the development and preparation of IRWA Courses 101, 901, 902 and 401.

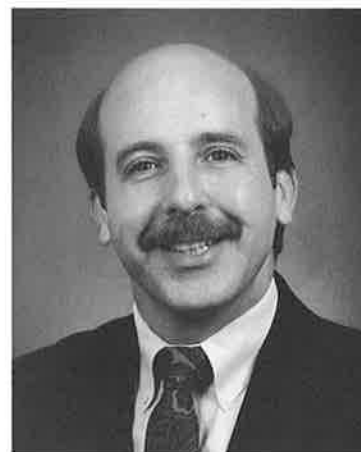
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Meet Len Boschetti

A graduate of State University of New York, Len Boschetti has more than twenty-five years of experience in the land business and as a corporate executive with responsibility for right of way and lease acquisition.

He began his career as a Landman and District Landman with Weaver Oil & Gas Corp. working the Appalachian area. He later served as Land Manager for Houston Oil & Minerals Corp. in Houston where he supervised a full time and contract land staff of over 100 personnel with land budgets up to \$20 million per year.



Len also served as Vice President/Land for Chappelle Exploration Co., Houston, where his responsibilities included serving joint venture participants and managing corporate finance.

As the staffing liaison between field operations and corporate clients, Len has worked on numerous pipeline projects, most recently a 1,100 mile line from Texas to Ohio, a line into the Chicago area, a 355 mile line from Illinois to Michigan, a 265 mile line in Louisiana, and a 26 mile line running through the ship channel area in Texas.

He is a Certified Professional Landman, a member of the International Right of Way Association, the American Association of Petroleum Landmen and he serves on the Pipeline Committee.



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