

Surveying Services

by

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I. INTRODUCTION

In an ideal setting, the prospective buyer or landowner seeking to improve their property will retain the services of a competent surveyor who will prepare a detailed boundary retracement survey plan. The plan will be duly forwarded by the prospective buyer or landowner to a competent title attorney who will examine both the plan and the title records. A title opinion will be prepared by the attorney and the buyer or landowner advised on the marketability of the title with recommendations for problems that are discovered.

In practice, most landowners seek neither the advice of an attorney or surveyor before making improvements. Most conveyances are handled by an attorney who does not have a current survey plan. Consequently, the attorney relies almost entirely on a limited research of recorded deeds within the client's chain of title to form an opinion on the title. Potential title problems caused by vague boundaries, encroachments, overlaps, etc. are seldom discovered from examining the deeds alone. Furthermore, the attorney often lacks the skills, knowledge, training, or experience that will allow him or her to identify potential survey problems from a limited examination of the descriptions found in the title abstract. This document has been prepared to aid the attorney in evaluating surveys and survey information.

II. POSTULATES

To understand and evaluate surveys and survey information, certain basic postulates regarding surveys and survey information must be introduced and explained.

2.1 Descriptions and Title

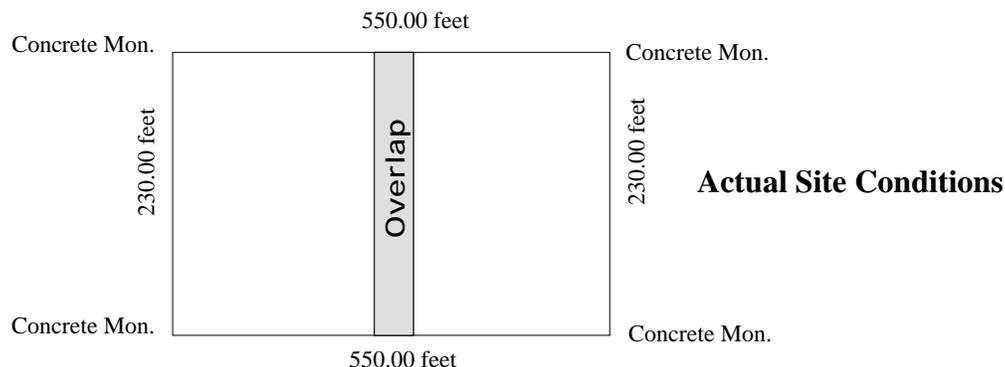
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A good description is not a guarantee of a correct survey or good title. The best description for locating property boundaries is a metes-and-bounds description. However, as the following text and figure show, a seemingly adequate metes-and-bounds description may cause or hide title problems.²

Example:

Left Parcel: "... Beginning at a 2" X 2" concrete monument set; thence on a true bearing, North 89° 58' 30" East a distance of 280.00 feet to a #4 rebar set; thence South 00° 01' 30" East 230.00 feet to a #4 rebar set; thence South 89° 58' 30" West 280.00 feet to a 2" X 2" concrete monument set; thence North 00° 01' 30" West 230.00 feet to the point of beginning. Containing 1.48 acres.

Right Parcel: "... Beginning at a 2" X 2" concrete monument set; thence on a true bearing, South 89° 58' 30" West a distance of 280.00 feet to a #4 rebar set; thence South 00° 01' 30" East 230.00 feet to a #4 rebar set; thence North 89° 58' 30" East 280.00 feet to a 2" X 2" concrete monument set; thence North 00° 01' 30" West 230.00 feet to the point of beginning. Containing 1.48 acres."



The descriptions describe two parcels, side-by-side, each 280 feet wide. However, the parent tract from which both parcels derive their title is only 550 feet wide. As a result there is 10 feet that is included in both deeds.

Figure 2.1

Likewise, a bad description is not the same as bad title (i.e., an incomplete or problematic description may convey good title). A bad description may and often does convey good and marketable title, although not adequate to locate the property boundaries without relying on extrinsic evidence.

Example: "Bounded on the north by the Penobscot River, on the east by Route 2, on the south by James Finnigan's land, and on the west by Jerimiah Ladder's land."

There are many times that a bad description is often a symptom or indication of problematic title. Consequently, the question arises, how to determine if a bad

² The problem illustrated by the descriptions and figure could have been avoided if a careful survey had been obtained or the description were originally written to convey the East 1/2 and West 1/2 with the common boundary described with certainty.

description will cause problems or whether a seemingly adequate description may be hiding problems?

2.2 Adequate in the Past, Inadequate for the Present

The majority of descriptions currently used were originally written from a survey performed when the property was only worth a fraction of the parcel's present value. In the past the cost of the survey may have exceeded the value of the property (hence, errors discovered in the survey were seldom corrected). Furthermore, the property was often surveyed and the description written by the landowner, attorney, or surveyor lacking adequate training and using only rudimentary equipment and procedures in comparison to today's standards.

"In closing this report, it may not be improper to call attention to the fact that the various litigations and disputes about boundaries, which our courts of justice are constantly called upon to decide, are most of them either directly or indirectly the result of the present loose and imperfect method of conducting land surveys. This evil is not, however, it must be acknowledged, confined exclusively to the surveyors. Many of our lawyers, who are entrusted with the drafting of instruments of conveyance, are often deficient in the knowledge requisite to render their descriptions of land correct and to place them beyond the possibility of a misconstruction." *Variations of the Magnetic Needle, Report of the Commissioner on the Variations of the Magnetic Needle, State of Maine, p. 74, 1866.*

In cases where the descriptions are adequate, the disappearance of the monuments and marks often lead to the same problems that poor descriptions do — uncertainty, encroachments, and conflict. In some situations, the original corner monuments, if there were any, no longer exist. This situation is often the result of inexpensive previous surveys, generally of poor quality. In other cases where quality surveys were performed, lack of care and attention has resulted in the decay, destruction, and disappearance of the monuments and original marks.

"The deeds to these respective properties in the chain of title are as we so often see ... inadequate, inartfully drawn and in essence, ineffective in order to attempt to locate and define a boundary line under today's standards. It's a known fact that in days gone by, that landowners were not very particular with their descriptions with their properties. Most went upon the fact that they knew where their property line was, their neighbor knew where it was, and when it came to making deeds, it didn't make much difference what they put in the deed or how they described it. The buyer under those deeds was usually a person local in the area and he knew where it was anyway. And, for that reason ... have caused all of this litigation that the Court has seen, trying to straighten out boundary lines, and the locations of various properties. It certainly goes without saying that in days gone by, the methods and instruments

to be used for making surveys, and defining the boundaries of land, had not been refined to what they are in this day in time, and the results are simply that the old deeds are totally and wholly inadequate to base reasonable boundary line determinations on without resorting to the best abilities that a particular individual that is called upon and trained in that field, and to go upon that property and do the best he can.” *Dickinson v. Sims*, unreported, (Tenn.App. 1992)³

“The inaccuracy of early surveys, the fine disregard which our pioneers showed for the accurate measurement of their holdings, and the difficulties inherent in the subject, all result in boundary line disputes, which become more frequent as the subject matter becomes more valuable.” “The Establishment of Boundary Lines by Practical Location,” 4 *Cal. Law. Rev.* 170⁴

The question, of course, is how long ago is too long and how does an attorney determine the age of the previous survey without doing all the research and field work the attorney is attempting to avoid, if unwarranted?

2.3 A Surveyor Provides An Opinion, Not A Guarantee

The surveyor is a licensed professional that is sought to provide an opinion and not a product.⁵ Surveyors are no different from attorneys, doctors, ministers, and others who offer services to the public. An attorney cannot guarantee a person’s innocence or guilt before or after a trial; a doctor cannot guarantee a patient’s perfect health, cure for a malady, or demise after a thorough physical exam or medical attention; and a minister cannot guarantee a soul’s salvation after offering absolution. Some argue that the surveyor is different because the surveyor provides work products to the client. It is true that the surveyor often provides plans, reports, descriptions, and new corner monumentation. However, these work products are no different from the abstract or estate plans resulting from the attorney’s service; marriage certificate resulting from the minister’s service; or medical chart resulting from the medical doctor’s service. Seldom can professionals in the business of providing services, offer guarantees on the outcome of their services, regardless of the number and form of the work products prepared.⁶ Given the uncertainties in

³ Also see *Young v. Blakeman*, 153 Cal. 481, 95 P. 888 (1908)

⁴ Also see “The Establishment of Boundary Lines by Practical Location,” 4 *Cal. Law. Rev.* 170; “The Conveyance,” 187 *Law Times* 258, 15 April 1939; “Built-Up Boundaries,” 4 *Cal.Law.Rev.* 299; “Old Law Suits and Old Monuments, Stones and Lore,” 100 *Law Times* 427

⁵ Although the opinion is communicated in the surveyor’s work products.

⁶ Certainly, it should be pointed out that the ceremony and cost attending a church wedding, combined with God’s blessing as evidenced by the marriage certificate signed by the minister should be a work product above any a surveyor could offer. Despite all this, no one realistically sues the minister or God for negligence in bringing couples together in marriage.

professional practice involving services to clients, how can the surveyor provide a guarantee on a boundary location given the lack of reliable measurements, information, and memories of local people that the surveyor must call upon in order to provide his or her services? The honest answer is that the surveyor cannot and should not be expected to.

While the foregoing may seem logical and to make sense, in practice the logic is often overlooked — with members of the legal profession often being the worst abusers. Few surveyors can honestly admit that they have not been pressured by attorneys to provide guarantees on matters that for practical purposes are impossible to guarantee.

“[T]he land surveyor's work often involves retracing the footsteps of surveyors who, approximately 100 years previous, performed surveys, kept field notes and set stone monuments to establish and perpetuate section lines and corners.... While present-day, licensed land surveyors are required to follow local, state, and federal regulations that define present-day standards of practice while searching for ancient monuments, it is a foregone conclusion that present-day surveyors may or may not find a particular ancient monument. ... but it is impossible for him to insure that he is, in fact, standing in the 100-year old footprints of the original surveyor.... It is possible for two qualified surveyors to meticulously follow the standards of practice for surveying while retracing a 100-year old survey, and disagree on a corner location without either being negligent.... Locating and remonumenting ancient corner locations is not an exact science, and mere location of a corner, or approval or disapproval of a particular survey does not automatically establish either compliance of [sic] non-compliance with a surveyor's standard of care.” *Yellowstone Basin Properties, Inc. v. Burgess*, 255 Mon. 341, 843 P.2d 341 (Mont. 1992)

When a man has had a training in one of the exact sciences, where every problem within its purview is supposed to be susceptible of accurate solution, he is likely to be not a little impatient when he is told that, under some circumstances, he must recognize inaccuracies, and govern his action by facts which lead him away from the results which theoretically he ought to reach. Observation warrants us in saying that this remark may frequently be made of surveyors. Thomas M. Cooley, Chief Justice, Supreme Court of Michigan, 1864-1885, “The Judicial Functions of Surveyors” *Surveying & Mapping*, Vol. XIV, p. 161

Consequently, it must be recognized as a fundamental postulate that when seeking the surveyor’s services, the client will receive an opinion and not an absolute guarantee. The limit of the surveyor’s responsibility toward a client could be stated by the following:

The surveyor should make every attempt to communicate useful, accurate, and understandable locative information on boundaries and limits of ownership (if

legally fixed); along with visible and substantial improvements located on or over the surface of the property that when coupled with the surveyor's opinion on the boundary location and information obtained from reasonably available records, would disclose matters that could or may effect the marketability of the title and that would be expected from competent surveyors, similarly situated.

2.4 Surveyor's Record Search is Different From A Title Search

A surveyor's record search is different from a title search. A comparison of the surveyor's research responsibilities with a title abstractor's responsibilities should enlighten non-surveyors. An explanation is often required because an attorney, in an effort to eliminate the surveyor's need to research the records, will provide a title abstract. An abstract is helpful but not conclusive or often complete for the surveyor's purpose. While an abstractor and surveyor often refer to the same documents to obtain information, the similarity ends at this point. The surveyor is seldom concerned with the soundness of title as evidenced by the words and sequence of documents recorded. Proper parties, acknowledgments, liens, consideration, dates, releases, and the category of the document are seldom of interest, let alone read by the surveyor. The surveyor's efforts are focused on boundary information. More times than not the surveyor will scrutinize each word in the property description while failing to even examine the names of the parties to the deed. The title abstractor, for their part, will examine the information in a deed with great care but seldom understand or adequately visualize the property configuration from reading the description. Furthermore, the abstractor seldom goes beyond 40 years of records, while a surveyor can seldom rely on only 40 years of records to obtain the information needed. Often a surveyor will search back through the records until the record creating the boundary (i.e., parent tract) is discovered.

And then there are those who will hand the surveyor a deed containing no information but the names of adjoining landowners, and expect him to unpack his instrument and locate their boundaries forthwith. If a starting point is in dispute or not readily found, they will know of a base line from which every valid survey should start.... Richard A. Mawhinney (Machias, Maine), *Surveying Problems In Eastern Maine, Coastal and Interior*, pp. 8-9 (c. 195?)

A surveyor will often spend as much time looking at related records as they spend examining the records within the client's chain of title. Consequently, surveyors often devote considerable time seeking private survey maps, road records, maps in state archives, records in local historical societies, and original lot layouts.

The abstractor seldom uses these related records. Perhaps more important, a competent surveyor will always search the records pertaining to the adjoining properties - often back to a historical time exceeding or equal to the search of the client's records. The justification is that the surveyor seeks to establish a boundary common to two or more properties — the records for one chain of title may be just as important and relevant as the records for another chain of title.

Based on this comparison, the surveyor's record search is often broader and more in-depth than the title abstractor's search. The attorney should realize that good title information does not necessarily mean good survey information and vice versa. The surveyor that is content to rely upon the client's abstract will often fail to discover problems and not properly retrace the client's boundaries.

2.5 Limitations

A surveyor ordinarily confines the survey to those matters that would be disclosed by a reasonable search of the public records and information visible at the site or immediately adjacent to the boundaries. The surveyor must rely on normal human facilities coupled with the surveyor's specialized knowledge to discern important information. Consequently, the surveyor is not able to scan below the ground surface to see buried conduit, contaminants, or a high ground water table. The surveyor is not capable of smelling petroleum distillates or other chemicals that were dumped long ago. The surveyor is unable to fly over large parcels or nearby surrounding property to locate wetlands, ancient graves, protected resource areas, harmful dumps, or incompatible land uses that may effect the property in question. A surveyor's hearing is incapable of detecting voltage transmissions that exceed the allowable voltages mandated in a deed. Finally, the surveyor is not a clairvoyant and is incapable of realizing what future use the property or nearby property may be subjected to. The point is that the complexities of problems that may reside on the property cannot all be identified by employing the services of a surveyor. Complete protection is only possible by the employment of numerous specialists at great expense. There is no other alternative.

In other cases, the surveyor's services will be employed under less than favorable conditions with strict time limits imposed. These limitations may further restrict the surveyor's efforts to locate or discover problems or important

information. An example may be a boundary retracement in January where snow covers many of the corner markers. Another example may involve the location of property boundaries along water during a summer drought where the water level is abnormally low.

The surveyor will or should be able to identify certain problems that are appropriate to the surveyor's education, training, knowledge, the reasonable availability of the information, and the notoriety of the information — no less, but no more.

III. OBTAIN A SURVEY OR NOT?

One of the questions that should come up at the time of a conveyance, logging, or erection of improvements is whether the buyer or landowner should obtain the services of a surveyor to perform a boundary retracement survey.⁷ A retracement survey is a survey with the objective of locating boundaries previously established (as opposed to creating new boundaries). It is dependent upon a historical surveyor's work. The boundary defined during a retracement survey should coincide with the location of the boundary that had been previously created.

“[A] surveyor can be retained to locate on the ground a boundary line which has theretofore been established. When he does this, he ‘traces the footsteps’ of the ‘original surveyor’ in locating existing boundaries. Correctly stated, this is a “retracement” survey, not a resurvey, and in performing this function, the second and each succeeding surveyor is a “following” or “tracing” surveyor and his sole duty, function and power is to locate on the ground the boundaries corners and boundary line or lines established by the original survey; he cannot establish a new corner or new line terminal point, nor may he correct errors of the original surveyor. He must only track the footsteps of the original surveyor. The following surveyor, rather than being the creator of the boundary line, is only its discoverer and is only that when he correctly locates it. *Rivers v. Lozeau*, 539 So.2d 1147, 1151 (Fl.App. 5 Dist.1989)⁸

The cost of a boundary survey can be substantial and range anywhere from \$500 to several thousand dollars depending on the property's size, terrain, vegetative cover, existing corner markers, weather, and time span since the previous

⁷ A boundary retracement survey should not be confused with a mortgage loan survey or mortgage loan inspection. Under ideal conditions, the mortgage loan inspection will identify visible and discernible encroachments at the site. At worst, the mortgage loan inspection is a drive by view of the property to make sure a house resides on or somewhere near the property.

⁸ Also see *Tyson v. Edwards*, 433 So.2d 549 (Fla.App. 5 Dist. 1983); *McKinley v. Hilliard*, 248 Ark. 627, 454 S.W.2d 67 (1970)

survey, to name a few factors. The money for a retracement survey would be well spent if the buyer is forewarned from purchasing a serious problem. On the other hand, the money spent on surveying services can seem like a waste if no problems are discovered and the property is found to be as it appears according to the most recent records. Consequently, attorneys have often sought some aid or methodology in formulating a recommendation whether the client should obtain a new boundary retracement survey or, in the alternative, to accept as sufficient a historical survey or the current record information.

3.1 Evaluation Components

There are a number of components found in descriptions and plans that may be evaluated in order to arrive at an opinion whether to recommend a retracement survey be performed or, in the alternative, accept the historical survey and description. The following are the most common evaluation components.

3.1.1 Closure — Performing a closure check is one tool used to check for potential problems in a metes-and-bounds description. A description, if properly written, should provide enough information with sufficient precision to mathematically begin and end at the same point. A properly prepared metes-and-bounds description should have a direction and distance for each and every segment of the boundary surrounding the entire property.⁹ In other words, the directions coupled with the distances should begin and end at the same point. If the measurements were plotted, they should form a closed figure. Failure to provide sufficient information for a closure check on a metes-and-bounds description is a symptom of a potential problem.

A closure check can be performed by plotting each course¹⁰ in sequential order, as the courses are listed, to determine if the resulting figure forms a closed figure.¹¹ Another method is to convert the courses into dependent coordinate values¹² and compare the final coordinate values with the starting coordinate values

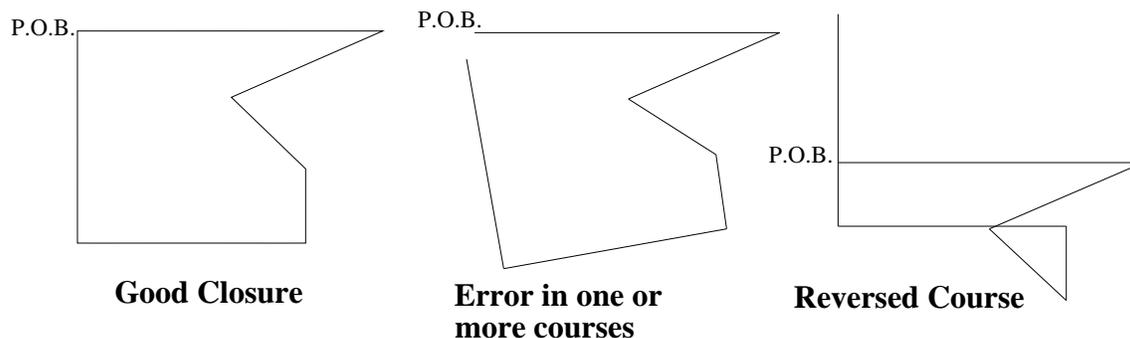
⁹ In some cases where the boundary follows a stream, lake, road curve, or other curvilinear surface, a “tie line,” or straight line course between the termini, is provided to provide a closure check.

¹⁰ A course is composed of a direction and distance

¹¹ This would only be true for metes and bounds descriptions and not for other forms of descriptions such as those often used to describe easements.

¹² This is mostly done using coordinate geometry software known as COGO programs.

to see if they are the same.



Three figures show various results from plotting the directions and distances in a deed description. The figure to the far left is a plot that forms a closed figure, indicating an acceptable closure. The middle figure probably contains one or more errors in one or more courses. Finally the figure on the far right represents what happens when a course is reversed (e.g., N03°W --> S03°E).

Figure 3.1

The failure of the figure to close or the last coordinate values to be the same as the starting coordinate values indicates the description is either incomplete, inadequate, or contains one or more errors.¹³ There may be one or more missing courses, reversed courses, transposed numbers, errors in the field measurements, or a host of other possible problems. If a problem is discovered, the historical descriptions should be compared with the present description to attempt to locate transcribing errors. If the error is in the field work, only a survey can reveal the source of the problem.

Plans should not be immune from a closure analysis. There are numerous plans that show a closed figure but when the numerical information on the plan is evaluated, the resulting figure fails to resemble the figure shown on the plan.

3.1.2 The Number of Exceptions

In some cases, one or more lots have been conveyed off a parent tract in a piecemeal fashion over a period of time. The present description often contains a description of the parent tract and then goes on to except one or more conveyances out of the parent tract description. The result is that the abstractor is often unsure of the extent and size of the original tract.

¹³ The potential sources of the error are numerous and often frustrating to locate. Some are errors made in the field while others are errors caused in copying or writing the description.

Example: "... to the point of beginning, containing 5 acres...
Except a one acre lot sold to Sarah Bunting as found in deed book 343, page 211.
Except a two acre lot sold to Ezekial Willoughby by deed executed 9 Oct. 1955.
Subject to a utility easements described in deed book 321, page 93.
....

To complicate matters, the conveyances (exceptions) out of the parent tract more times than not were made without benefit of a perimeter survey of the parent tract. Furthermore, the subsequent surveys of the out-conveyances failed to check for conformance and continuity with the previous conveyances out of the parent tract. The result is much like an apple vendor who starts with a bushel of apples, promises apples to numerous parties, and after delivering on the promises the vendor 1) finds there are more promises than apples, 2) has no apples left for herself, or 3) the apples left for herself are the worst of the bushel.

Furthermore, it must be recognized the surveyor's fee to determine the remainder is undoubtedly going to be high because of the need to survey numerous parcels — a long overdue debt from all the previous half-measures that were adopted in the past to save money. The failure of the original owner of the parent tract to obtain and pay for a complete perimeter survey and subsequent dependent divisions will place great cost and risk on the owner of the remaining land many years later.

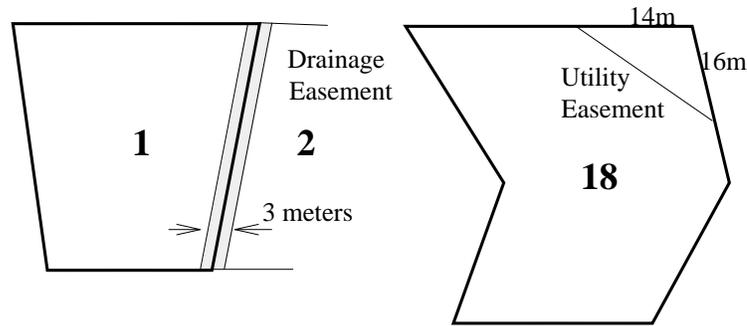
3.1.3 Number of Easements/Restrictions

Similar to the problem with numerous exceptions are the uncertainties surrounding property that contain numerous easements and restrictions. Failure to adequately locate, describe, and define the easements and restrictions may cause numerous problems. Often, easements are not adequately described and take the form of blanket easements that have no definitive location, width, or dimensions. In effect they can fall anywhere on the property in any manner of width and orientation — blanketing the property. Utility easements are notorious for causing this problem.

Example: "Does hereby grant to _ utility company an easement for the installation of electric lines and poles in a manner or location as they determine.

In other cases, easements are described or shown and have some orientation

and shape but lack clear reference to the property boundaries and consequently appear to “float” somewhere on the property. Easements taken for highway purposes are notorious for this fault.



The drainage easement between lot 1 and lot 2 has a width but is not located with certainty. In other words, is the easement centered 1.5 meters on each side of the boundary or some other proportion as a scale of the cross-dimension of the easement would suggest. On lot 11, the utility easement is located but not dimensioned. What is the width of the utility easement?

Figure 3.2

A properly prepared easement should have a point of beginning located by using one or more directions and distances from a property corner. In a strip description, the location of the easement is given relative to some part of the easement using one or more directions and distances. The width of the easement is stated. Furthermore, the use or limitations of the easement are stated.

Example: “Beginning at a 5/8th inch diameter rebar, the northwest corner of the tract described previously; thence along lot 15, South 18° 21’ 22” East 45.211 meters to the center of a 4.954 meter wide drainage easement; thence along the center of the drainage easement, North 88° 14’ 45” East 142.232 meters to the boundary with lot 3; lying North 18° 21’ 22” West 34.571 meters from the southeast corner of the tract described, extending and contracting the ends of the easements to meet the boundary with lot 3 and lot 15....”

Failure to find a complete description of the easement on the survey plan or within the description may be a prelude to serious problems.

3.1.4 Age of the Previous Survey

The time that has elapsed since the last survey can be a relevant criteria for evaluating the need for a new boundary retracement survey. The greater the age of the last survey, the more likely errors or problems will be present. Even in short time periods, out-conveyances can occur, improvements erected that cross the boundary or building set back, and incompatible uses arise. Short of a complete title

search to the original operative conveyance, items that can be used to help determine the time period of the previous survey include the following.

3.1.4.1 Coarse Directions — When all the bearings are given to the nearest degree or 1/4 of a degree of arc (i.e. 15', 30', or 45'), the survey was likely completed using a compass. The compass was the predominate survey instrument up to the early 1900's.

Example: "... South 15° West"

If most or all the bearings are given to the nearest minute of arc, the surveyor probably used a transit. The transit was the predominate survey instrument from the early 1900's to the 1960's.

Example: "... North 85° 23' East"

3.1.4.2 Coarse Distances — Distances in rods, poles, or perch are a good indication the survey was probably performed sometime before the mid-1900's.

Example: "... 23 rods 23 poles 23 perch"

Distances in chains and links were used in lieu of rods, poles, or perch in some cases. It was more common to use chains and links prior to 1900 than during a later time.

Example: "... 18 chains ... 3 links"

3.1.4.3 Area Not In Acres — The use of rods, poles, or perch for the area of the parcel instead of square feet or the decimal part of an acre indicate the survey was probably performed before the mid-1900's. The use of roods to fix the area probably indicate a survey performed prior to or during the early 1800's.

Example: "... 4 acres, 2 roods, 2 rods"

3.1.4.4 Corner Monuments — The monuments used to mark the property corners are often a good indication of the age of the survey. Presently, the preponderance of corners monumented by surveyors are in the form of concrete or metal. This was not true several decades previously. Metal was very rare and quite valuable in the 1700-1800's. As a consequence, other material with resistance to rot and decay were often used. In rural and remote sections of the country, posts, trees, and

stones continue to be used for corner markers in order to avoid carrying the weight of iron to the remote sites. Without using metal, it was common to mark corners using naturally occurring material such as posts, trees, ledge, streams, stones, wood, etc. A survey several decades old would likely have a majority of corner monuments composed of stone or wood.

Example: "... to a cedar post; ... to stones; ... to a planted stone; ... to a pine knot; ... to a blazed spruce...."

Urban lots that call for post corners were probably surveyed prior to 1940. Rural property descriptions that call for all non-metallic corners were probably surveyed sometime before 1970.

Certain monuments may provide a more definitive estimate of the original survey. For example, a corner marked by a chestnut indicate a survey performed sometime before 1930. The mature American Chestnut tree was virtually wiped out by the Chestnut blight sometime after 1930. Other monuments, though not as common, provide similar estimates of the age of the last survey. Other monuments include coal hearth,¹⁴ ice house,¹⁵ buffalo waddle,¹⁶ warpath, Indian camp, turnpike,¹⁷ etc.

3.1.5 Skill, Knowledge, and Care

Obviously, the skill, knowledge, and care of the original surveyor or the person who wrote the original description can be an important evaluation component. The greater the skill, knowledge, and care, the less chance for problems. There are methods to estimate the skill, knowledge, and care of the original surveyor or at least the person preparing the description.

3.1.5.1 No Directions — When there are no directions other than general directions, the chances are good that a survey was not performed or the description was written by the landowner or attorney unfamiliar with or unable to make survey measurements. The use of the following terms generally indicates a lack of care or concern on the writer's part.

¹⁴ Pits for turning trees to charcoal for use in iron furnaces (circa 1700-1850)

¹⁵ Sheds used to store ice for the summer (circa 1700-1940).

¹⁶ Pits were buffalo rolled to caked their bodies with mud and keep off insects. (circa 1600-1740, eastern woodland bison. circa 1800-1870, western bison)

¹⁷ Many of the earliest roads were turnpike roads privately owned and operated for profit by collecting tolls. Most states took over private turnpike roads by the 1930's.

Example: “easterly ... southerly ... northerly ... parallel ... perpendicular”

3.1.5.2 Unbalanced Precision — Sometimes a description is found where the bearings are given to the nearest degree or minute except for the last direction which is given to the nearest second and all distances are given to the nearest foot except for the last distance which is given to the nearest 0.01 feet. This unbalanced precision often indicates the surveyor never checked the field work and merely calculated what the proper final bearing and distance should be.

Example: “... North 85° 23’ East 121 feet; thence South 18° 13’ 45” East 200.321 feet to the point of beginning ”

Another situation where unbalanced precision of the measurements may occur is where a description was prepared by borrowing measurements for a common boundary from the descriptions of the neighboring property. The varying age of the neighboring surveys together with the varying basis for the directions often resulted in the composite description not closing as previously explained. In extreme cases, the units were not even harmonized.

Example: “... N 83° E 11 rods to a stone; thence southerly 100 feet more or less to a metal pin; thence South 82° 33’ 20” West 324.22 feet to a metal pin; thence”

3.1.5.3 Omission of Measurements — The omission of one or more measurements makes the geometry of the original survey difficult if not impossible to check. Many times the description intentionally omitted several courses the surveyor placed on the original plan in order to reduce or shorten the tedious work in writing a description.

“... thence in a straight line to the point of beginning ... thence by the stream several courses and distances...”

In other cases, the original surveyor may have intentionally omitted one or more measurements in order to prevent a closure check or verification of his work.

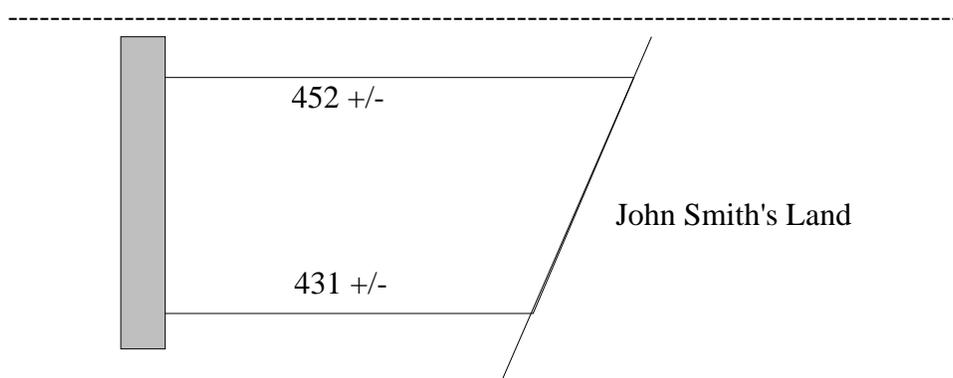
Finally, many descriptions have omitted one or more courses through carelessness and mistake. The common procedure employed in conveyancing is to delegate the task of preparing a deed to the lowest paid employee in the law firm. The description, often incomprehensible to the legal clerk, is copied from one deed to another without checking. This often results in mistakes, omissions, and

transposed numbers going undetected.¹⁸

3.1.5.4 Poor Monuments — Sometimes the use of posts, birches, poplars, alders, wooden stakes, etc. for all the corner monuments indicate an “office” or “chamber” survey. By citing monuments that have a short span before their decay and obliteration, the surveyor has made it difficult for someone to prove the surveyor was not in the field. Even in the rare cases where such monuments were actually used or adopted, their short life span indicates a lack of care by the original surveyor and forewarns of some difficulty in retracing the boundaries.

3.1.5.5 Distance Uncertainties — Distances shown along with an indication of uncertainty may suggest: 1) the surveyor is not sure of the “on-the-ground” terminus location; 2) the surveyor has not actually measured the line or only measured the line using crude methods or equipment; or 3) the surveyor does not want the distance to control.

Example: “... thence South 15° 18’ 20” West 230 feet more or less to the shore of Moosehead Lake....”



In the figure, the distances include a \pm indicating some uncertainty in the distances.

Figure 3.3

3.1.5.6 Low License Number — Licensing of land surveyors in many states occurred relatively recently. In other cases, when existing licensing acts were revised to exclude engineers from performing boundary surveys, the then current licensed engineers were allowed to apply for and receive surveying licenses.¹⁹ Consequently many persons were granted licenses without examination or verification of

¹⁸ A sample of ten deed descriptions by the author indicated that there was a 33% chance of an error in a description if the description was copied five or more times.

¹⁹ At the time this was written West Virginia continues to allow professional engineers to perform land surveying.

experience. These surveyors are known as “grandfathered” surveyors.²⁰ Of course, it must be stressed that there are numerous excellent and well qualified surveyors who were licensed in this fashion and provided the highest quality surveying services. However, there are numerous others that were incompetent before they were licensed and remained incompetent after receiving their license. In some states, grandfathered surveyors generally have low license numbers or some letter/number designation indicating the manner they received their license.

3.1.6 Confused Obligations

Many surveyors may be competent in retracing boundaries but are not well versed in real property law. As a result, some surveyors have failed to recognize that the boundary described in the records does not necessarily coincide with the ownership boundary. In some cases, a surveyor has over-simplified the work required to locate the boundary described in the records by merely recognizing the occupation line as the property boundary. In other cases, the surveys and resulting descriptions ignored important and fundamental canons of title.²¹ In still other cases, the surveyor has retraced the boundary according to the records without taking into account certain rules of construction that recognize ownership extending beyond the line of the original survey. As a result, the title may be clouded, be made unmarketable, or unmarketable title may appear as marketable title. The following are common omissions:

3.1.6.1 Public Road Easements — The call for a public road easement generally carries title to the extent of the grantor’s title or the center of the public road whichever is less. However, the original and subsequent surveyor frequently stopped their measurements short of the center of the road and placed the boundary along the right-of-way or edge-of-pavement. If the title to the area underlying the road easement is important²² or the building set back distances critical, the attorney should question the scope and depth of the surveyor’s research and the assumptions the surveyor used in determining the right-of-way title, location, and width. In terms of descriptions, there is likely to be uncertainty whenever the following or similar

²⁰ This term properly applies to all surveyors that were licensed under a previous edition of the licensing law regardless of the fact they did or did not have to take an exam.

²¹ A “stranger to the deed” problem is one example where the person preparing a description may have ignored an important canon of title.

²² See e.g., *Lamb v. Euclid Ambler Associates*, 563 A.2d 365 (Me. 1989) and *Metzenbaum v. The City Of Carmel-By-The-Sea*, 44 Cal.Rptr. 75, 234 Cal.App.2d 62 (1965)

words are found in a description:

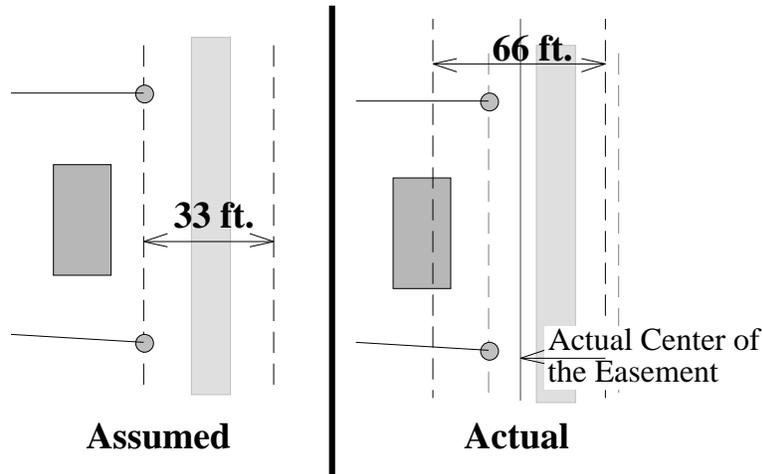
Example: "... to the public road; thence along the road"

In defense of surveyors who do not clarify the location of their client's ownership along public road easements, it should be recognized that road records are more times than not located in places other than the registry of deeds such as the municipal offices. In these offices, the records are often placed in some out-of-the-way location such as the attic, basement, or broom closet. In many cases the road records have been misplaced, lost, or destroyed. When the records have been located, the records are often difficult to use because they lack indices or are based entirely on long lost features or long forgotten names. The road descriptions themselves are ambiguous and difficult to read — written at a time long before typewriters when the land was mostly farms and all the people familiar with everyone in the county. Research is tedious, time consuming, expensive, and often unproductive.

Example: "Beginning along the Enderson Turnpike, 20 rods south along the pike from William Jackson's hog pen; thence S82°E 20 rods to a post; thence ... to end at the lane leading to Ezekial Thompson's Grist Mill. The road to be opened at a width of 2 rods."

Other common assumptions made by surveyors that may cause problems along roads are the following:

- a. The surveyor may have fixed the width of the road to be the average width between improvements or assumed a statutory or common law width for the public road easement or right-of-way (e.g., 3 rods). The surveyor has in most cases not researched the public records to determine the legal width. (This is not the case where the surveyor has shown a book and page number where the road record can be found.)
- b. The surveyor has probably assumed the title stops at the right-of-way rather than extends to the center.
- c. The surveyor has probably assumed the center of the traveled way is the center of the easement.



The figure illustrates the common assumptions that are made and what the actual records, when located, reveal. The figure at the left, shows how the surveyor has assumed the asphalt roadway is in the center of the easement and the easement is 2 rods wide (by common law for undefined roads). The figure on the right, is the results after the record reveals the asphalt roadway was placed inside the easement but not in the center. Furthermore, the records show the easement is 4 rods wide. The end result is that the house resides within the easement.

Figure 3.4

3.1.6.2 Water Bodies — Unable or unwilling to wade into the water, the surveyor most likely made their measurements along the water’s edge. In depicting or describing the boundary, the surveyor has shown the ownership boundary to coincide with the survey line. While there is considerable dissension among courts, the inadvertent call for the bank or shore in a description does not always convey title to the center or low water mark. The attorney should be cautious when the following or similar words are found in a description or found on the plan:

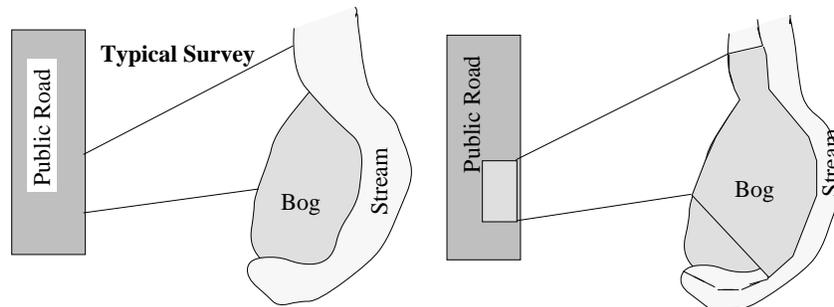
Example: “... along the bank ... shore ... edge”

As a result of past loose practices in surveying and writing descriptions for riparian property, valuable shore or riparian property has lost some of its value because the owner cannot enjoy the full extent of water recreation or access. The following are some situations that are ripe for problems:

- a. Great Ponds or Navigable Lakes — Many surveyors either stop at the existing water’s edge or assume the title stops at the high water line or top of the bank.
- b. Non-tidal Streams, Rivers, etc. — The surveyor shows the boundary along the water’s edge or bank when in fact it should be in the center²³ or along

²³ Some states hold the center of the stream is a line equi-distant between the low water’s edge. Other states hold the center to be a line that follows the deepest point in the channel.

- the low water line.²⁴
- c. Tidal Water — The surveyor shows the boundary along the shore or upland edge of the flats when in fact the boundary should have been along the low tide line.²⁵
 - d. Side Boundaries — Even when the boundary is shown to coincide with the extent of ownership, the issue of side boundaries is often overlooked or ignored. The attorney should question how the boundary is to be or was extended between the limits of the survey to the limits of ownership.



The figures show the sometimes considerable area that is omitted from the survey and subsequent description prepared for property bordering water bodies and roads.

Figure 3.5

- e. Common Law Easement - Often the surveyor fails to show the common law easement that may exist between the high and low water. Even in cases where the landowner's title extends to the center or low water line of a stream, there may be a common law easement in favor of the public along the water body.

3.2 Incompatible Standards

In addition to assessing the quality of the original description or survey, persons relying on the survey or description should understand that the standards of the former surveyors and their surveys may not be compatible with the needs of the current landowner or prospective user. For example, the last survey performed when the property was farmland at \$2 an acre is seldom adequate to rely upon when building a three million dollar mall.

3.2.1 Different Types of Services

Surveyors do more than simply locate boundaries. Surveyors are able to and

²⁴ The location of the limits of ownership vary between states. Most states recognize private title extends to the low water mark on navigable bodies of water and the center for non-navigable bodies of water.

²⁵ The location of the boundary may depend on state law. For example, in Maine title extends to the low water line or 1650 feet from the high tide line (whichever is less).

often provide a wide assortment of different services.²⁶ Surveying services often include construction surveying, control surveys, development planning, land information system management, mapping, and numerous other services. Often these services take advantage of the surveyor's knowledge of boundaries and measurements yet fall far short of or go beyond the surveyor re-establishing the boundary location. Two common services that surveyors provide that use boundary knowledge but are not considered boundary retracement surveys are mortgage loan inspections and ALTA/ACSM Land Title Surveys.

The necessity of removing the survey exception from a mortgagee's title insurance policy has led to a service called a mortgage survey, mortgage loan survey, or mortgage loan inspection. This service is not a boundary survey and is inadequate and inappropriate for erecting improvements, discovering title defects (other than obvious encroachments), or sufficient for preparing a revised description. Some states have adopted standards for these services, most states have none and rely on the surveyor and client to reach agreement on the standards to apply. A few states have determined this service to be so marginal and the resulting product so defective or misleading that the services should be discouraged, upgraded, or are outlawed. Even states that have adopted minimum standards recognize the services provided fall far below what is reasonable and common for a boundary retracement survey. Many prudent surveyors will clearly note the limitations of this service on the face of the sketch or report that is prepared. Despite the notes, the sketches are frequently confused with boundary retracement surveys and used where only boundary retracement surveys should be used. Unfortunately, the form is often confused for substance. The words "sketch," "mortgage," or "inspection" in the title or name is usually a good indication that the document does not represent a boundary retracement survey and should not be relied upon.

An ALTA/ACSM Land Title Survey generally involves a survey of the boundary but a boundary retracement survey is not an ALTA/ACSM Land Title Survey. An ALTA/ACSM Land Title Survey is ordinary sought to remove the survey exception from title insurance policies for commercial property, property valued over one million dollars, or for property where the homeowner seeks a title insurance policy without the survey exception. Consequently, the ALTA/ACSM

²⁶ This has led to some universities and colleges to change the name of their surveying programs to names such as geomatic engineering, spatial land information science, etc.

Land Title Survey goes far beyond showing the location of the boundaries. The specifications that apply to this type of service require the surveyor note conditions, improvements, and objects that may effect the marketability of title. The fee for performing this scope of services required for this level of service generally exceeds the cost of a typical boundary retracement survey. The attorney that expects this level of service should not seek a boundary retracement survey.

3.2.2 Different Classes (Levels) of Boundary Surveys

There are different classes of boundary surveys. For laypersons unfamiliar with professional services, there is a belief that all professional services are uniform and consistent regardless of the client, circumstances, or property involved. The layperson's belief is true in part because a certain minimum level of service is always provided. Beyond a minimum level, however, the surveyor's services vary considerably depending on situations and conditions surrounding the services. An analogy can be made to the attorney preparing an estate plan. All clients seeking an estate plans can expect the attorney to prepare a will. However, the a client with six million dollars worth of assets will receive a markedly different level of service than a client with \$40,000 worth of assets who also seeks an estate plan from the same attorney. The resulting work products may both include a will but the wills are likely to be markedly different in their contents, number of pages, and scope.

In boundary surveys, the level of service will often differ depending on the situation, location of the property, and needs of the client. The landowner who seeks a boundary retracement survey prior to logging will likely receive a different level of service than a client who wants a boundary retracement survey in contemplation of litigation or subdivision. Another way to comprehend the different levels of surveying service would be to compare a boundary retracement service for a 0.25 acre city lot where a 1.5 million dollar building is being erected and the boundary retracement service for a 400 acre parcel of woodland in the Appalachian mountains where a new hunting camp is being erected. It follows the boundary retracement plan or description prepared for the woodland owner should not be used at some later time to subdivide the property or erect valuable improvements (e.g. a new Wal Mart).

The layperson should be told that regardless of the situation, location of the

property, and needs of the client, the surveyor has probably completed adequate research and made a reasonable attempt to locate the position of the corners. The level of surveying service frequently varies regarding the: 1) the refinement and precision of the retracement measurements; 2) extent of verification with other corner monuments and evidence found on adjoining parcels; 3) records examined outside the registry of deeds; 4) markings made along the boundary between the corners; 5) location and depiction of the size, visibility, and type of encroachments or appurtenances affecting the property; 6) peripheral services such as locating easements, flood plains, set back lines, etc.; and 7) quality, number, and scope of the document(s) prepared that are meant to communicate the surveyor's opinion.

Standards promulgated by licensing boards and professional societies often make a point of classifying the different types and levels of surveying services (or permit the client and surveyor to do so). It would be prudent for any real estate practitioner to obtain a copy of the current local and national surveying standards to better understand the differences in services when evaluating or ordering surveying services.

3.2.3 Evolving Standards for Boundary Surveys

Over time, minimum standards or criteria for boundary surveys have changed. In most cases the minimum standards or criteria have increased resulting in higher standards and better quality work products than in the past.²⁷ Better education, training, equipment, and interaction among practitioners have allowed better services and an ever expanding expectation about the surveyor's services from clients and users. Generally, criteria change or have been modified so that the quality, scope, and services provided several years ago are no longer the same for the present time. Consequently, the level, scope, and reliability of previous surveying services performed by the same surveyor can be expected to change with time. This situation often leads to distrust or dissatisfaction with surveyors by title attorneys who seek to have relatively recent surveying documents re-certified by the author of the original — only to have the author-surveyor demand additional time and a seemingly large fee for what was assumed to be merely an administrative matter. In

²⁷ The same attorney that conscientiously revises a client's estate plans every five years to take advantage of revised tax laws will be incensed at the surveyor for refusing to re-certify a seven year old survey without re-performing some of the record search and field work.

the surveyor's defense, a competent and ethical surveyor will have to perform some minimal level of record research and field work to update their earlier work. Similar behavior is expected from all professions. The lawyer cannot be expected to re-certify an earlier abstract they completed without updating a record search. A doctor will not use a historical x-ray to certify a patient's current health for insurance purposes. A minister will not allow a historical confession to permit absolution at the present time.

IV. EVALUATING TITLE USING SURVEY DOCUMENTS

As a general rule, three documents are prepared from a boundary retracement survey. These are documents are the: 1) plan, 2) description, and 3) report. The last two are frequently omitted in some parts of the country, depending on the circumstances surrounding the boundary retracement or the agreement with the client.

The plan, also known as a plat, draught, or survey, is a summary of the practitioner's findings or opinion. Too much detail and the plan becomes incomprehensible. Too little information and the plan loses credibility and fails to convey critical information for foreseeably reliant parties using the plan in a reasonable manner. The plan may be recorded, so sensitive information, information harmful to the client, or information that has little or no public meaning is ordinarily placed in the report.

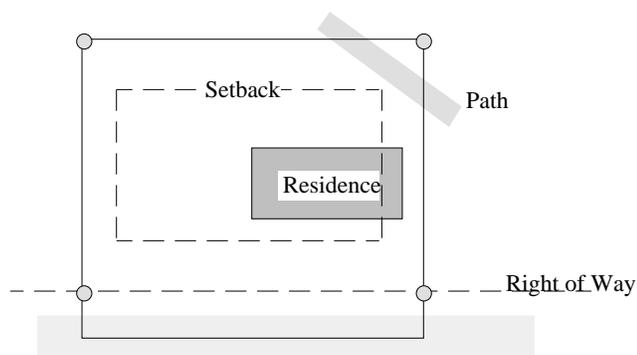
The report, known as a "survey report" or "forensic report," varies in its content, scope, depth, and format depending on the surveyor and the demands made upon the surveyor. The comprehensive report will contain a detailed explanation, analysis, and factual basis for the decision. Reports will seldom be recorded so sensitive, harmful, or technical information is often placed in the report. It should be noted that most attorneys fail to ask for or seek a report from the surveyor and consequently omit a valuable tool for evaluating the surveyor's work and discovering potential title problems.

Finally, the description is a written narrative of the practitioner's opinion. The description is a narrative summary of the surveyor's opinion on the record boundary location. The writing skills and consequently the quality of the descriptions

vary widely between surveyors and across the country.

4.1 Plan Notes

Often potential title problems discovered by the surveyor are disclosed on the face of the plan. The surveyor will often show encroachments that cross the boundary, fences on or near the boundary, utilities that cross the property, joint driveways, and so on. Typically, these problems will be noted in pictorial form on the plan.



In the figure, the surveyor has shown a path crossing the property and a residence astride the building set back line. Arguably, the surveyor may be relying too much on the intuition and knowledge of the client or attorney in communicating the message that the pictorial depiction represents a problem.

Figure 4.1

In other cases, the surveyor will put notes on the plan that allude to a problem or where other important information, including problems, can be found.

Notes:

1. Wetlands are present on the property
2. No attempt was made to determine the width of the public road easement.
3. For important and relevant information see the Survey Report.
4. There is a fence two feet south of and along the entire length of the northerly boundary.

The notes should be carefully examined by the attorney. Often they reveal problems.²⁸ In some cases, the absence of notes should be cause for concern. For example, the failure of the surveyor to mention wetlands or the 100 year flood plain limit for property along a stream where wetlands and flooding is expected should

²⁸ At least two surveyors have told the surveyor that often problems shown on plans are ignored. However, when surveyors have color highlighted the problems on the plans before giving them to the client, the queries have doubled, indicating many notes or problems are overlooked or not carefully examined.

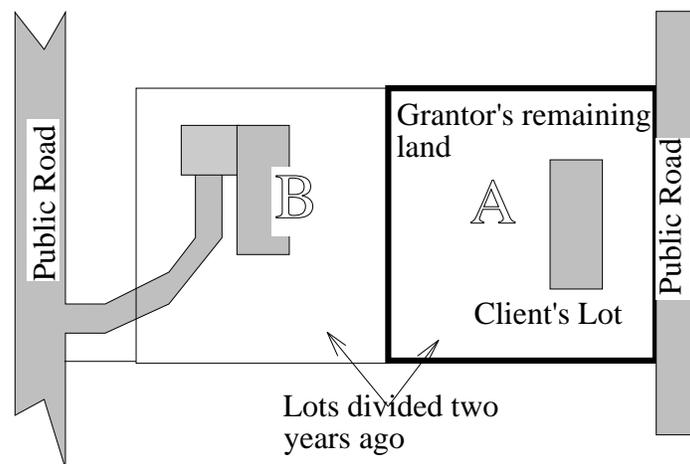
raise questions and cause further investigation on the attorney's part.

4.2. Application of Legal Principles With Site Conditions

Aside from obvious problems noted on the plan or plan notes, an attorney should be prepared to review the plan or report in conjunction with a title abstract, apply their knowledge of real property law, detect potential problem areas, and provide recommendations or advice. Some common problems that are not noted by the surveyor but may be determined from the information shown on the surveyor's plan include the following:

4.2.1 Easements by Necessity

The surveyor's research will often encompass all or part of the surrounding properties. In some cases problems with the neighboring property may point to a title defect on the client's property. The surveyor performing a survey of the grantor's remaining land may show the original lot configuration or parent tract configuration. When surrounding properties are shown, the attorney should examine the situation carefully to discover potential easements by necessity or implied easements.



The figure shows the existing driveway for Parcel B extending across the lands of another person in order to reach the public road - an actionable trespass. Consequently, the attorney should realize that any legal access for Lot B must pass through the grantor's remaining land (Parcel A) - indicating an easement by necessity. This condition would likely only be revealed by an astute attorney examining a detailed surveyor's plan prepared as a result of an extensive survey by the surveyor, coupled with the realization the driveway is an actionable trespass. A title search confined to the grantor's remaining land (Parcel A) would not likely reveal the easement by necessity across Parcel A.

Figure 4.2

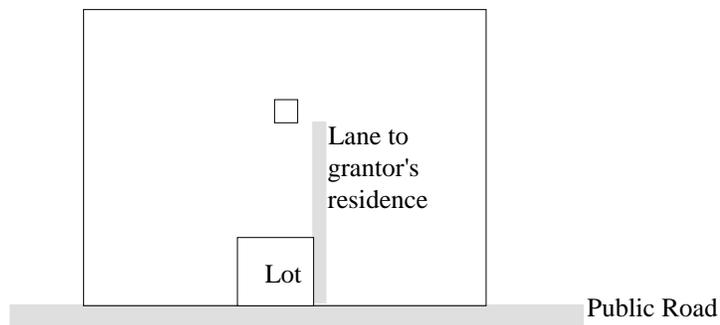
Consequently, the attorney should seek to have the surveyor reveal as much information on the adjoining parcels as possible, to include any problems that surface regarding the neighbor's property. Extensive survey work is required to disclose the basis for this type of problem and is therefore likely to be costly for the client.

4.2.2 Implied Easements

There are numerous cases where implied easements may be present and represent an encumbrance or restriction on the reasonable enjoyment of the property. The attorney must be especially diligent for implied easements where 1) the surveyor shows or the deed describes the parcel abutting a private road, 2) the lot is shown on a subdivision plan displaying one or more streets, and 3) the surveyor shows one or more apparent encroachments (e.g., septic field) that may have existed at the time of the original division. Often the surveyor will not mention the possibility of implied easements or state with certainty that a trespass is occurring. In fact, the surveyor may inadvertently create implied easements.²⁹ The following are some common examples of implied easements that may be revealed by examining the surveyor's work products.

4.2.2.1 Call for Grantor's Private Road — Easements may be implied where the description calls for the grantor's private road³⁰ or the subdivision plan shows the grantor's private road as a boundary.

Example: "...to the lane leading to the grantor's residence; thence along the grantor's residence..."



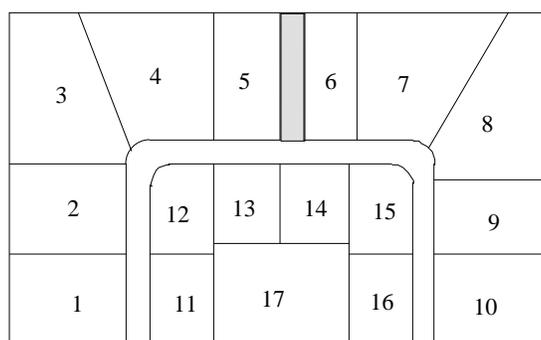
In the example and figure, the lot is described or shown bordering the grantor's private lane. Under the common law, the lot obtains an implied easement to use the lane - necessity is not a factor.

Figure 4.3

²⁹ The reason is that the typical surveyor is not trained to give title opinions and recognize title problems.

³⁰ See e.g., *Robertson v. Robertson*, 214 Va. 76, 197 S.E.2d 183 (1973)

4.2.2.2 Roads on a Plan of Subdivision — Easements may be implied where a buyer purchases a lot according to a plan of subdivision showing roads that were not public roads at the time of the original conveyance from the developer. Most courts in dealing with this situation have found that the lot owner has an implied easement in all the roads shown on the subdivision plan regardless of their actual location or usefulness to the lot in question.³¹ This implied easement will exist irrespective of whether the roads are subsequently accepted as public roads or later vacated or discontinued. There are numerous former public roads that were vacated or discontinued and private easements remain to benefit the owners of the subdivision lots. Many of these former public roads now have expensive improvements erected upon them.



In the figure, lot 17 may have an implied easement in the former public road between lots 5 and 6 (shaded). Consequently, any improvements erected by the owners of lots 5 and 6 that intrude into the easement may be an actionable trespass in favor of lot 17 and other lots.

Figure 4.4

The attorney should be extremely cautious when a survey plan shows a lot owner has erected improvements on a vacated or discontinued public road that was once part of a subdivision. Attorneys should be aware that seldom does a surveyor show encroachments or adverse use of an easement that may be appurtenant to a subdivision lot where the road and lot are not adjacent to each other. In other words, the surveyor is not apt to drive around the subdivision to examine all the original easements looking for encroachments or adverse uses.

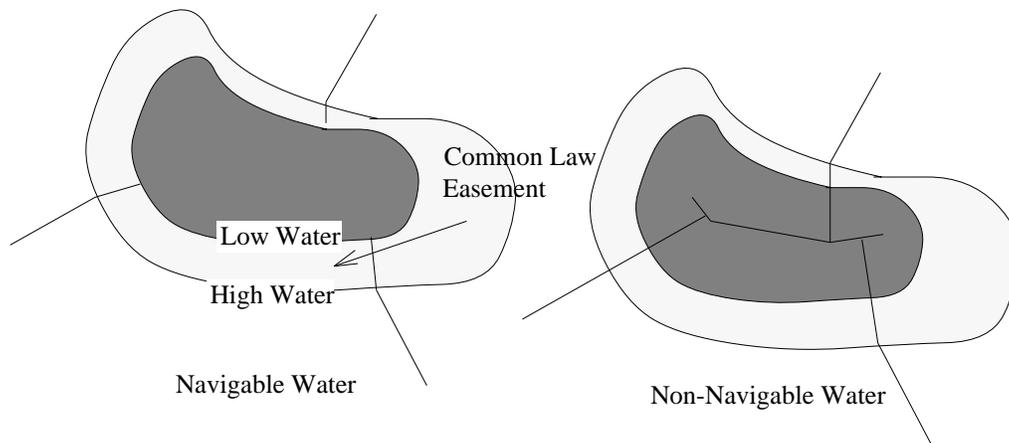
4.2.2.3 Visible Easements — A properly prepared plan should disclose areas of potential adverse use that are visible on the site or of such notoriety that they may

³¹ See e.g. *Leininger v. Trapizona*, 645 A.2d 437 (Pa.Cmwlt. 1994) and *Callahan v. Ganneston Park Development Corp.*, 245 A.2d 274 (Me.1968)

be an implied easement at the time of the original division and conveyance.³² Common easements that may fall into this category include party walls and joint driveways. The title attorney should carefully investigate the historical nature of all improvements shown on the surveyor's plan that are erected on or astride the common boundary and otherwise appear as encroachments.

4.2.3 Common Law Easement

Along navigable bodies of water there is generally a public easement that allows limited use by the public.³³ In other cases, where the body of water is not navigable or created by private parties (e.g. hydro-electric dam), trespass may be prevented, even upon the water itself. Consequently, when the survey plan shows the property bordering or astride a water body, the title attorney should seek to determine whether there is a public easement or recreation may be restricted to the boundaries of the parcel in question.



The figure illustrates some of the differences encountered between water bodies that are navigable and non-navigable. In navigable water bodies, the public has a right to use the entire area between high water boundaries. On non navigable water, persons other than the fee owner may not cross the boundary without risking trespass.

Figure 4.5

There are other common law easements, though not as notorious. In certain jurisdictions there are common law easements (or licenses) to remove nuisances, trim boundary trees (ordinarily boundary trees are considered to be owned as a tenancy in common), party walls, cross intervening land to reach great ponds,³⁴ and so on. Often the only evidence of the use of common law easements are paths,

³² See e.g., *Koehler v. Price*, 204 Ill.App.3d 845, 149 Ill.Dec. 906, 562 N.E.2d 370 (1990)

³³ The major use is the right of passage but may include fishing, hunting, and certain forms of recreation.

³⁴ See e.g., 17 M.R.S.A. § 3860 (Maine)

physical marks, or improvements disclosed on survey documents.

4.2.4 Width of Easements

Many easements have been created without noting a width. This is often the case with prescriptive easements or utility easements such as electrical, gas, water, and sewage are present.³⁵ Whenever the surveyor shows utilities crossing or near the property boundary, the title attorney should determine what the width of the easement is and what limitations are in place within the easement area. In at least one case, the location of a utility line on the adjacent property prevented development of the neighboring property.³⁶ Whenever a utility is shown crossing the property or a deed allows a “blanket”³⁷ easement, the attorney should be sure the utility improvements have been properly located and the express or reasonable width for the easement will not adversely effect the fee owner’s enjoyment of the property. In some cases, the landowner may need to be cautioned not to erect improvements in the easement area or advised to remove existing improvements out of the easement area.

4.2.5 Former Public Roads

Because the records for public roads are often located in municipal offices and inadequately indexed, the road records are not often examined in a title search. The only evidence of former public roads is ancient road beds or trails shown on a survey plan. Whenever the surveyor shows the location or evidence of a former public road, the attorney should scrutinize the facts carefully. In some cases private easements remain in discontinued or vacated public roads. Private easements may remain in public roads because they existed prior to the road becoming public. In other cases, the private easements arose by operation of law after the abandonment or discontinuance of the public road. There are also numerous cases where a public road was improperly discontinued³⁸ and must be presumed to continue as a public road. Another problem that may arise is where utilities have been installed in public easements. Subsequent discontinuance or vacation of the public road may cause the

³⁵ See e.g., *Zettlemyer v. Transcontinental Gas Pipeline Corp.*, 617 A.2d 51 (Pa.Cmwlth 1992)

³⁶ *Cunningham v. Otero County Electric Cooperative, Inc.*, 845 P.2d 833, 114 N.M. 739 (NM.App.1992)

³⁷ The term “blanket” easement is given to easements that can fall anywhere on the property until such time as they are physically located by construction of the utility.

³⁸ Failure to follow statutory procedures, inadequate notice, etc.

utilities to become a trespass upon the fee owner.³⁹ Records and survey maps should always be examined for evidence of former public roads and any prior or subsequent use of the former public roads.

4.2.6 Encroachments in Easements

Oftentimes, encroachments in the easement are overlooked by the surveyor and title attorney. Whenever an easement is shown or described, the use must be determined from the wording of the grant or what would be reasonable under the circumstances. Any limitation or restriction not allowed by the grant, license, or law should be noted.⁴⁰ The attorney should carefully examine the terms of the deed or dedication with the information shown on the survey plan. A careful examination will often indicate unlawful limitations, restrictions, or trespass on the easements. Encroachments may take the form of 1) the servient estate encroaching upon the dominant estate by preventing or restricting the reasonable or necessary use of the easement; 2) a third party encroaching upon either the servient estate, dominant estate, or both; or 3) one dominant tenant infringing on the rights of other dominant tenants.⁴¹

4.2.7 Overburdening

When the dominant estate uses the easement beyond the express conditions, a reasonable manner, or its intended use, the easement is said to be overburdened.⁴² To determine if overburdening has occurred, the attorney must not only be aware of what the original grant allows but should check on the current use of the easement as revealed by the survey plan or report. Some common forms of overburdening that may be revealed by an inspection of survey documents coupled with a title abstract include the following:

4.2.7.1 Utilities in Access Easements — Often it is presumed that a person who has an access easement to reach their property (i.e. appurtenant easement) has the right to install utilities within the easement. This use is not always allowed. Whenever

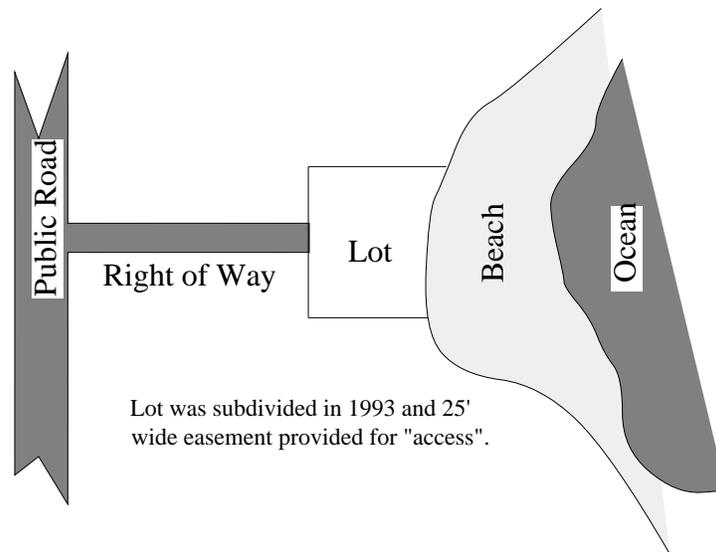
³⁹ See e.g., *In re David L. Baird*, 479 Pa. 252, 388 A.2d 313 (1978) and *In re City of Altoona*, 479 Pa. 252, 388 A.2d 313 (1978)

⁴⁰ See e.g., *Akers v. Canas*, 601 So.2d 305 (Fl.App. 3 Dist. 1992)

⁴¹ See e.g., *Poire v. Manchester*, 506 A.2d 1160 (Me. 1986)

⁴² See e.g., *Avery Development Corp. v. Village By The Sea Condominium Apartments, Inc.*, 15 Fla. L. Week. 2158, 567 So.2d 447 (Fla.App. 4 Dist. 1990)

property is accessed by a private easement, the attorney should check the language in the operative conveyance and the state law to determine whether utilities are allowed in the access easement.⁴³



In Maine, utilities are not included by implication in access easements created or granted after 1989.⁴⁴ Consequently, the above lot may not be able to use the access easement to bring in utilities found along the public road.

Figure 4.6

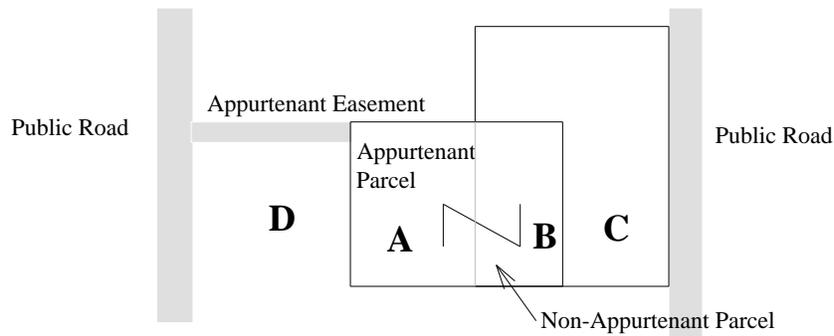
4.2.7.2 Non-Appurtenant Parcels — An appurtenant easement may only be used for the benefit of the appurtenant parcel. This may seem like a straight-forward application of a long-tested common law rule. Nevertheless, there are numerous examples where the appurtenant easement is used to access non-appurtenant parcels by the owner of the appurtenant parcel - effectively overburdening the easement. The most common example is where an owner of an appurtenant parcel purchases additional surrounding land contiguous to the appurtenant parcel and uses the appurtenant easement to reach the additional purchases. The use of an appurtenant easement to access non-appurtenant land causes as trespass on the servient estate.⁴⁵ (To further complicate matters, when this situation is revealed, the attorney should recognize that an easement by necessity may exist over the lands of the neighbor to access the non-appurtenant land.)

In 1903, Parcel A was subdivided out of Parcel D. An appurtenant access easement was provided for the use of Parcel D. In 1960 the owner of Parcel A bought some additional land from the owner of Parcel C (Shown as Parcel B). Current tax maps show Parcel A and Parcel B as one lot.

⁴³ But cf. *Pope v. Muth*, 332 Pa.Super. 264, 481 A.2d 355 (1984)

⁴⁴ See 33 M.R.S.A. § 458

⁴⁵ See e.g., *Cooper v. Sawyer*, 48 Haw. 394, 48 Haw. 538, 405 P.2d 394 (1965) and *Kanefsky v. Dratch Const. Co.*, 376 Pa. 188, 101 A.2d 923 (1954)



The common owner of Parcel A and Parcel B cannot use the easement appurtenant to Parcel A in order to access Parcel B. Consequently, a somewhat ludicrous result ensues where the common owner, rather than cross the common boundary between Parcel A and Parcel B in order to reach Parcel B, must travel by public road around to Parcel C and drive across Parcel C (easement by necessity) in order to reach Parcel B.

Figure 4.7

4.2.7.3 Prescriptive Easements — Often the surveyor will show an undocumented and apparently adverse use upon the client’s property. Long continued adverse use, maintained under certain conditions, may give rise to an easement known as a prescriptive easement.⁴⁶ Prescriptive easements are construed strictly against the adverse user, her heirs, and assigns. Overburdening of the prescriptive easement may occur whenever the easement is used in a manner inconsistent with the use placed upon the easement during the prescriptive period. The use during the prescriptive period establishes the allowable use of the prescriptive easement thereafter.⁴⁷ For example, if an easement is acquired by prescription over a period of years by a farmer who traveled across land of another to remove crops and repair fences, the resulting prescriptive easement may not ordinarily be expanded at some later time to provide access to residences that are located upon the former fields.

4.2.8 Restrictive Uses

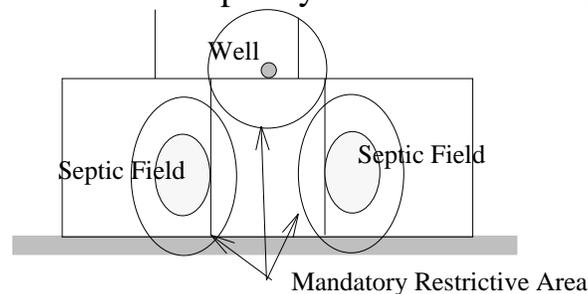
Often the existence of certain natural features or improvements on or near the property impose restrictions on the property. The restrictions would not be revealed by an extensive title search. They would only be revealed by an extensive survey that shows natural features and improvements residing on the neighbor’s

⁴⁶ See e.g., *Comber v. Inhabitants Of The Plantation Of Dennistown*, 398 A.2d 376 (Me. 1979) and *Robertson v. Robertson*, 214 Va. 76, 197 S.E.2d 183 (1973)

⁴⁷ See e.g., *Crane v. Hayes*, 417 S.E.2d 117, 187 W.Va. 198 (1992); *Cunningham v. Otero County Electric Cooperative, Inc.*, 845 P.2d 833, 114 N.M. 739 (NM.App.1992) and *Mahoney v. Devonshire, Inc.*, 86 Md.App. 624, 587 A.2d 1146 (1991)

property on or near the boundary. In other cases, restrictions are imposed through covenants. The following are common examples of restrictions.

4.2.8.1 Well/Septic Field Setback — A careful boundary survey should reveal improvements on the neighboring property immediately along or near the common boundary. In some cases, the type and scope of the improvements may work as a restriction on the neighboring property, severely limiting the location of contemplated improvements. In a few cases, it is conceivable a vacant lot may not be improved in a reasonable manner as a result of the improvements erected on the neighboring lots. Two common improvement that often work to the disadvantage of a neighboring lot is a well or septic field. As a result of health concerns, wells and on-site septic systems have to adhere to a mandatory separation distance. Consequently, if the neighbor locates their well or septic system too close to the common boundary, the neighboring landowner may be prevented from subsequently locating their well or septic system in an advantageous location.



In the figure, the neighboring septic fields and well have restricted the middle lot to such an extent there will be little discretion allowed in the location and erection of improvements on the middle lot.

Figure 4.8

For small vacant lots where the buyer intends to erect a residence using on-site water and sewage systems, the location of neighboring septic fields and wells should be noted in order to discover burdensome restrictions or limiting factors.

4.2.8.2 Zoning — Records at the courthouse seldom reveal zoning restrictions. Zoning is generally a matter handled at the local municipal level. A prudent attorney will often check the zoning on the property before recommending its purchase or sale. The attorney must often seek the answer to one or more of the following questions regarding zoning: 1) Will the zoning allow for the contemplated improvements or use of the property? 2) Is there existing non-conforming improvements or use of the property? 3) If there is existing non-conforming improvements or use of the property, is the improvements or use allowed by

variance or “grandfathered?” 3) Is there non-conforming improvements or use on the neighboring property such that the value of the property in question is effected? 4) If there is non-conforming improvements or use planned or presently existing that is not permitted, what is the cost of remediation (removing the non-conforming use or seeking a change in the zoning)?

The aid of a surveyor is often enlisted to show the type and location of existing improvements or the location of particular zoning restriction lines (e.g., building set back). The surveyor can be particularly valuable in locating zoning that is site dependent.⁴⁸ Zoning that is commonly site dependent is shoreland zoning or resource protection zoning. Many federal, state, and local municipalities have passed legislation or ordinances designed to protect sensitive habitat such as streams, lakes, rivers, wetlands, aquifers, wildlife nesting areas, endangered species, etc. This zoning is particularly troublesome to the title attorney because the restricted areas are not always mapped and are generally dependent on site factors such as topography, plants, resident wildlife, and geology, to name a few. In other words there is seldom constructive notice, reliance is almost completely dependent on actual notice. Actual notice requires the discovery and identification of the protected or sensitive habitat itself. Furthermore, mandatory buffer strips around these habitats are often large. The sensitive habitat may not be found on the neighboring parcel yet may encumber the use of the client’s parcel.

4.2.8.3 Covenants and Conditions — Many subdivision plans contain notes that act as covenants or otherwise lead to important items that can or may effect the marketability of the title. Ordinarily, the wording that comprises a covenant does not raise a title concern. Seldom do the notes or covenants found in deeds or on plans, by themselves, cloud the title. However, covenants and notes, coupled with the location, size, type, or manner of improvements, often jeopardize the title. The attorney must identify covenants and compare the use shown on the survey plan with the covenants imposed on the property.

- “1. Lots shall be used for SEASONAL Single Family Dwellings only, NOT including Mobile Homes.⁴⁹
2. Lots shall Not be further divided.
3. The Town ... shall Not be responsible for the maintenance of any Road

⁴⁸ The normal extent of the surveyor’s services do not ordinarily include the identification of restrictions caused by natural features or habitat.

⁴⁹ This is an actual note found on a plan. The manner in which the note was written, prevents the year-round occupation of a \$200,000 house while allowing the year round occupation of a \$15,000 mobile home.

- shown on this plan.
4. Lot owners shall be provided deeded access to lots over land of _ and/or land of _ along the 50 foot Right of Way as shown.”

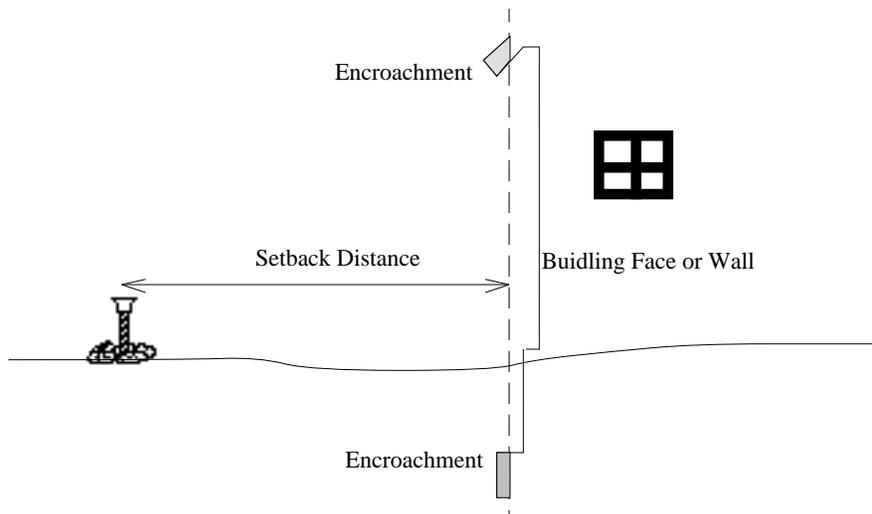
The above example shows poor wording and the extent that covenants cover.

4.3 De Minimus Encroachments

After describing how to best recognize and use what is shown by the surveyor, the attorney should be made aware that there are often items that are not shown by the surveyor. There are numerous instances where small encroachments exist that are not noted on the survey plan. Even when they are revealed by the surveyor, they are often ignored by title attorneys. However, there will be circumstances where even small encroachments may jeopardize the marketability of the title. The following are typical minor encroachments that are often ignored by surveyors.

4.3.1 Building Footprint v. Dripline

The vertical fronting of an improvement is seldom flat throughout its vertical length. The protrusions from the surface or slant of the facing may introduce minor encroachments that are not taken into account. A common example is the roof overhang (dripline) or footers (footprint) along a building's face. Where the wall of the building was constructed close to the boundary or building setback line, these protrusions out from the wall may encroach into the neighboring property or restriction line.



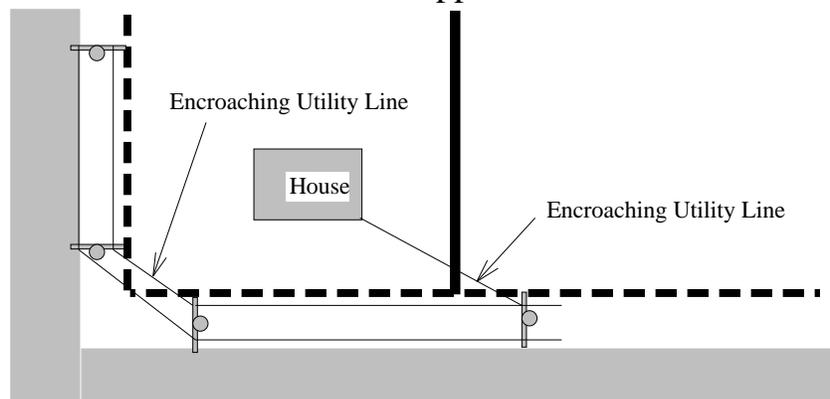
In the figure, the eaves and footer both protrude beyond the building set back, representing an actionable violation. However, it must be recognized that even if the code enforcement officer is made aware of the encroachments, few would prosecute such minor violations with vigor.

Figure 4.9

In some cases, surveyors will fail to show porches, small outbuildings, or minor improvements that are semi-attached and extend out from the main structure. In other cases, improvements are often ignored if the improvement can be easily moved (e.g. doghouse, “handyman” shed, swingset, rosebush, etc.). Nevertheless, any improvement may be an actionable encroachment. The title attorney should be cautious in discounting even minor encroachments where circumstances suggest even small encroachments may lead to, exasperate, or escalate disputes or official citations.

4.3.2 Utility Lines to the House

Another common encroachment that is frequently overlooked by surveyors is overhead⁵⁰ utility lines leading to a building. In some cases, the surveyor fails to look overhead and will miss aerial wires. In other cases, aerial wires are so common in areas that to make note of them would appear ludicrous.



The figure shows two common aerial encroachments that occur. One is the above ground wire connection from a nearby pole to the building, crossing outside the easement boundary across neighboring property. The second is the wire(s) that crosses the corner of the property, between poles located within the right-of-way.

Figure 4.10

These apparently insignificant encroachments, to neighbors quarreling or the disgruntled landowner looking for a righteous cause to obtain retribution for other slights, may be cause for legal action and subsequent removal. Often such minor

⁵⁰ Underground utility lines are always overlooked since they cannot be seen.

encroachments can be easily rectified with a license that is obtained without cost or fanfare at the time of the sale or purchase of the property.

4.3.3 Private Use In A Public Easement

Ordinarily, continuous occupation or permanent use by a private party maintained in a public easement is an actionable trespass. This situation is not uncommon but is often difficult to detect. Furthermore, the problem is often compounded by the appearance of a license from public authorities. A common example is cable television. Congress has passed legislation⁵¹ allowing cable television the supposed right to “piggyback”⁵² on other utilities to provide services to subscribers. In some districts this legislation has been found to be limited⁵³ while others have found this to be allowable.⁵⁴ Nevertheless, the cable television companies appear to have taken the position of occupying the public easement and dealing with litigation as it arises. Another common example is the installation of conduit or wires within the public easement connecting two non-contiguous lots owned by the same person. The title attorney should be watchful for such unauthorized encroachments especially where one business is being conducted upon two non-contiguous lots separated by an intervening lot.

4.3.4 Mailboxes and Paperboxes

One common encroachment that has recently been brought to light by litigious parties is mailboxes and paperboxes residing on the neighbor’s property.⁵⁵ Often at the direction of the postal carrier, a landowner is told to erect their mailbox across the road from their driveway entrance. While it has been argued successfully that the mailbox is a legitimate public use within the public easement,⁵⁶ the argument would not be as persuasive regarding the paperbox that is often set next

⁵¹ Communications Act of 1934, §§ 601 et seq., 621(a)(2), as amended, 47 U.S.C.A. §§ 521 et seq., 541(a)(2) also known as the Cable Communications Policy Act of 1984

⁵² Some courts speak of this as apportionment of a utility company’s right.

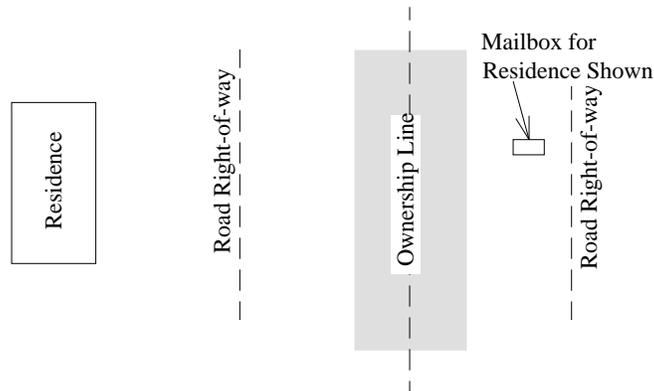
⁵³ *Cable Investments, Inc. v. Woolley*, 867 F.2d 151 (C.A. 3, 1989) and *Cable Associates, Inc v. Town & Country Management Corp.*, 709 F.Supp. 582 (E.D.Pa.1989)

⁵⁴ See *Centel Cable Television Company Of Ohio, Inc. v. Cook*, 58 Ohio St.3d 8, 567 N.E.2d 1010 (1991) and *Mumaugh v. Diamond Lake Area Cable Tv Company*, 183 Mich.App. 597, 456 N.W.2d 425 (1990)

⁵⁵ *Miller v. Nichols*, 363 Pa.Super. 508, 526 A.2d 794 (1987)

⁵⁶ In fact, in *Miller v. Nichols*, *ibid*, the mailboxes were found to properly reside in the public easement. The case is controlling only within Pennsylvania and had a very convincing dissent that may be persuasive in other jurisdictions.

to the mailbox.



The figure shows a common situation where the mailbox is across the public road from the owner's residence. Since the owner's boundary stops in the center of the road, the mailbox resides on the neighbor's land and may represent an actionable trespass.

Figure 4.11

Ordinarily, such minor encroachments are not shown out of ignorance or to avoid the appearance of frivolity. Nevertheless, the title attorney is cautioned to examine the situation carefully, especially where the mailbox or paperbox presents a nuisance or the neighbors are inclined to disagree over small matters.

4.3.5 Commercial Utilities in Public Roads

Almost all states by statute or court decision allow common and reasonably necessary utilities such as electricity, sewer, and water to reside within the public road easement. Ordinarily such use passes without notice or comment by the surveyor. In fact, surveyors are more prone to comment where utilities are not found in a public easement. However, it must be recognized that some early grants for a public easement were limited in scope. A reasonable interpretation of the ancient grants would not allow utilities to share the road easement.

Example: "... to the town for road purposes only and no other purpose whatsoever without the grantor's permission...."

Obviously such restrictive wording in the ancient grant of a public road easement may present a serious title problem where utilities subsequent share the easement with the public road. This possibility is often ignored with good cause. First, the maintenance of an action to remove the utilities will likely earn the ire of reliant neighbors and friends who would be cut off from service should the

landowner succeed in litigation. Second, it must be conceded that such an obstinate position often results in the landowner “cutting off their nose to spite their face.” In other words, any successful claim will deny the utility company the very conduit the landowner relies upon to get utility service. Third, the continued trespass over a long time period has in almost all cases been maintained for sufficient time to give cause to a prescriptive right.

4.4 Not Shown

A commentary on title problems that are disclosed by the surveyor would not be complete without explaining that certain situations effecting the title may be present and yet not shown. In other words, the absence of a notation on survey documentation does not necessarily mean the problem doesn't exist or there should be no cause for concern or further investigation. Most surveyors lack the expertise, experience, and training to locate some potential problematic areas. In other cases, surveyors do not believe it is within the scope of their professional duty to identify and locate certain items such as flood plains, designated agricultural lands, protected wildlife habitat, hazardous wastes, etc. Therefore, the failure to show or mention these areas or topics is not meant to infer they are not present. The following subjects typically escape review and detection by surveyors:

- a. Inchoate Mechanics Liens — The surveyor does not enter the dwelling to perform surveying services. Furthermore, even if there is evidence outside of the building suggesting inchoate mechanics liens, most surveyors will not note it.
- b. Wetlands — Most surveyors do not have the training, experience, or education to properly identify wetlands. As a result, wetlands (especially marginal wetlands) are not ordinarily shown on surveys - even though some statutes expressly require all wetlands be shown on subdivision plans.
- c. Designated Agricultural Land⁵⁷ — Surveyors will not ordinarily identify or show nearby designated agricultural land.
- d. Flood Plain — In most cases, the location of the Federal Emergency Management Agency (FEMA) 100-year flood plain limit is not located or shown.

⁵⁷ Designated agricultural lands are lands that have actively sought special designation and are therefore immune from tortious claims or nuisances brought about by common and reasonable farming practices such as confining animals or spreading manure, weed killer, insecticide, or fertilizer on the fields and crops.

- e. Proper Subdivision — Surveyors assume attorneys will review the lot for proper subdivision approval. Most attorneys are not familiar with subdivision requirements. As a result violations often escape notification or detection.
- f. Zoning - Most surveyors will only review set-back distances. Therefore, non-conforming uses and other violations would not be discovered. In some cases, surveyors will show the distance from the improvement to the boundary and assume the attorney will compare the distance shown with the legal set-back distance. A few surveyors will simply call the zoning or code enforcement officer and see if that official is personally aware of any violations.
- g. Below-Surface Improvements - Unless there are depressions or other surface indications, below-surface improvements such as the septic system leach field, underground utilities, drains, and so on, are not located by the surveyor and consequently can not be evaluated as to their effect on the title or proposed use of the property
- h. Hazardous Waste — Surveyors do not attempt to look for or identify hazardous waste on the property. Many surveyors would miss even obvious signs of hazardous waste such as discarded drums, areas of dead vegetation, unusual discoloration of the soil, discarded asbestos insulation, and so on because they have no training or experience in the identification of hazardous waste.
- i. Grave Sites — Unless the graves are located on or immediately adjacent to the boundary, the surveyor would not ordinarily discover grave markers or other indications of human burial. It would be rare for a surveyor to discover ancient Indian grave sites or marked graves in the interior of large parcels.
- j. Special Zoning - Zoning such as shoreland zoning is not ordinarily identified on the plan prepared by surveyors. Only major bodies of water will be shown and only if they exist on the premise being surveyed — even though special zoning may arise from less substantial physical features.
- k. Wildlife Habitat Area — Although environmental resource agencies have or are in the process of preparing maps showing protected wildlife habitat areas, surveyors do not ordinarily show these designated areas on their map.
- l. Violation of Covenants — Surveyors will likely note violation of covenants if they are physical in nature and based on locative aspects (e.g., building set backs). Covenants involving the use, structure, size, height, number, etc. of improvements will not likely be discovered or identified by the surveyor.

V. CONCLUSION

In conclusion, the prudent attorney should always advise their client on the advantages of obtaining a current boundary retracement survey before purchasing or improving real estate. Without doubt, a quality boundary retracement survey will be costly — not obtaining a survey may be more so. This document was intended to provide some guidance in evaluating historical surveys, descriptions, and utilizing surveying services for evaluating title. No attempt was made to described how to choose a surveyor or what to seek in contracting for surveying services. There have been other articles written on the topic.

In closing, the words of Judge Robert Gillespie may be most appropriate in reinforcing the need and value of having a boundary retracement survey:

“[L]and line cases usually generate a lot of heat and sometimes violence. These disputes involve the ownership of strips of land often only a few inches wide. For one reason or another, the narrower the strip of land in dispute, the more intense the feeling between the parties. Also, the less the property in dispute is worth, the greater the hostility. Before the case reaches the lawyers, angry words have usually passed between the parties. Sometimes a gun has been drawn, and before the case is over, a fight is not unusual. Now and then a party takes a ‘pot-shot’ at his adversary; homicides are not unknown. Brother has slain brother; kin have fought kin; and neighbor has killed neighbor. It sometimes happens that the best and most reasonable citizens becomes involved in a land line suit, and nothing herein is intended to criticize or poke fun at such unfortunate persons. No man should be criticized for defending his rights.” Justice Robert G. Gillespie, “Some Animadversions on Land Line Cases,” 33 *Mississippi Law Journal* 151 (March 1962)