I. Parcel Creation

A. What, Why?

A *child parcel* is a smaller part of a *parent parcel*. A child is generally separated from the parent with new boundaries although some may be shared. Multiple children mean multiple boundaries. How a parcel is created affects its description and relationships with surrounding parcels. A parcel's description implies parcel creation process and original intent. These are sometimes difficult to determine without a title search and field investigation, particularly with descriptions written by non-surveyors.

Creation procedure and intent affect how a parcel's boundaries are re-established when they conflict with others. Once a boundary is created, it exists in perpetuity unless removed by a legal process. This is also true for its relationship with other boundaries.

There are three ways to create multiple children from the same parent: Simultaneous, Sequential, and Combination.

B. Processes

1. Simultaneous Creation

New parcels are all created at the same time by the same legal instrument. Newly created boundaries have equal standing with respect to each other- there are no senior-junior rights. Parcel description is typically *lot and block* (subdivision), Figure 1, or *aliquot part* (USPLS), Figure 2.

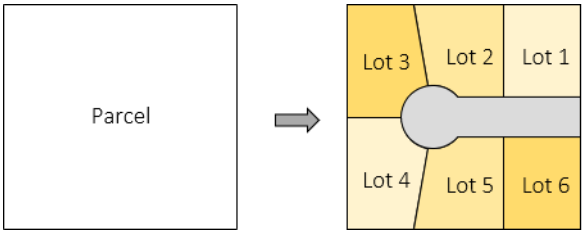


Figure 1

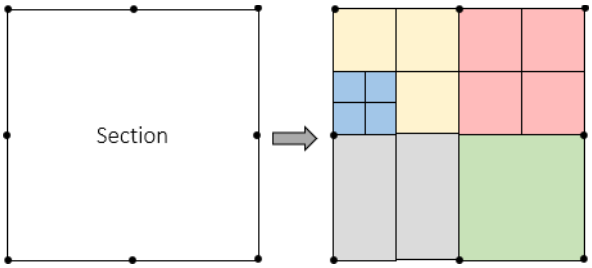


Figure 2

2. Sequential Creation

New parcels are created independently from the same parent over time. Earlier created boundaries have higher standing (senior) to later created boundaries (junior), Figure 3. Parcel description is typically *metes* (distance and direction), *bounds* (limits), or *metes and bounds* (combination).

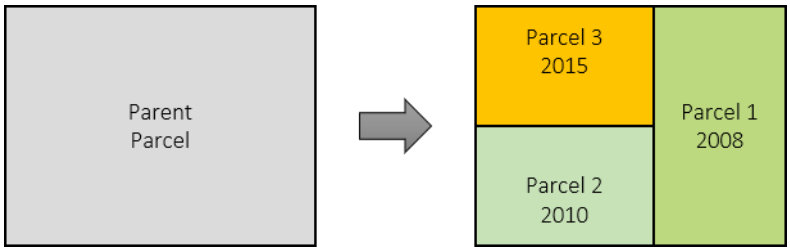


Figure 3

3. Combination Creation

New parcels are created by some combination of simultaneous and sequential. The parcel in Figure 4 is part of Lot 4 and part of Lot 5. New boundaries have characteristics of both creation types: all may have equal standing, there may be senior-junior relationships, or a combination. Parcel description is *quasi-metes and bounds* and typically include the word "of" indicating a sequential portion of simultaneous parcel.

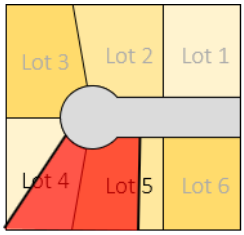


Figure 4

II. Rules of Construction (RoC)

Surveyors walk a fine line when re-establishing boundaries. The surveyor must try to resolve conflicts between written intent and evidence arising from that intent along with surrounding adjoining intent. Resurveys, with their dependence on description interpretation, are controlled by common law- rules and principles derived from long continued usage and customs (tradition), or judgments and decrees of judicial tribunals. It is based on collection and evaluation of evidence of original boundary location and subsequent evidence which exists because of the boundary. That evidence includes the description (written intent) as well as physical evidence and competent testimony.

This general framework is known as the *Rules of Construction* (RoC) also referred to as the *Order of Importance of Conflicting Elements*. In order of highest to lowest element they are:

Right of possession (unwritten rights)
Senior right (in case of overlap)
Written intentions of the parties (description)
    Call for survey
    Call for monuments; adjoiner
    Direction/distance
    Area/Coordinates

Notice a few characteristics of the RoC:

- there are only three major categories and a written description is the last category.
- within written descriptions the order is one based on logic and expected error accumulation (which can lead to conflicting terms):
    - a survey creates the boundaries
    - monuments are placed to mark the corners
    - measurements are made between the monuments
    - calculations are made from the measurements

This is not a strict inflexible list but a guideline. Element priority may change depending on original intent, physical evidence, or parol evidence. For example, area is one of the lowest elements and yields when conflicting with others. But if the grantor conveys the “East 1.0 acres” to the grantee, area becomes the primary element- the intent was to convey a specific amount of land.

Subsequent evidence, which owes its existence to, and is dependent on, original evidence, can modify or reinforce the RoC. For example, in the event a called for monument is lost, the next elements, direction and distance, would define the corner location. If, however, we can show that an improvement was referenced to the original monument and we can locate that improvement today, then direction and distance would yield to the reconstructed corner location if in conflict. This is a common situation with replacement monuments particularly for USPLS corners. A stone monument set to replace a decaying wooden Section corner post has the same

authority (control) as the original post. It's essential that a replacement monument be documented so later surveyors understand its authority.

A. Right of Possession: Unwritten Rights

Unwritten rights arise because of owner action or inaction along a boundary causing gain or loss of property rights. Unwritten doctrines include *adverse possession*, *prescription*, *oral agreement*, *equitable estoppel*, and *recognition and acquiescence*. Because it is affected by individual actions and may not conform to deed descriptions, ownership is ultimately determined by a court. There is no constructive notice of an unwritten right because, well, it's unwritten.

A surveyor does not have authority to decide ownership in these cases, at best showing possession and deed line differences on a resurvey map.

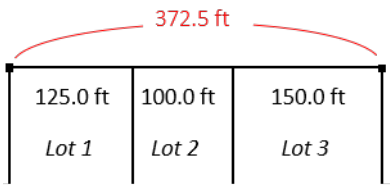
B. Senior Right: Gap or Overlap

When two or more adjoining child parcels are created from a parent parcel, the possibility exists their common lines will not coincide. Instead, there may be a gap between them or they may overlap. A gap is created when there is an excess- the grantor did not convey all he intended to. An overlap occurs when the grantor conveyed more than is actually present.

Gap or overlap resolution depends on how the child parcels were created.

1. Simultaneous

Simultaneously created boundaries have equal standing; any deficiency or excess is distributed among the parcels affected. The distribution is proportional based on parcel dimensions along the line of deficiency or excess, Figure 5.



Lot 1: W = (372.5/375.0) x 125.0 = 124.2 ft

Lot 2: W = (372.5/375.0) x 100.0 = 99.3 ft

Lot 3: W = (372.5/375.0) x 150.0 = 149.0 ft

Figure 5

2. Sequential

When parcels are created chronologically, senior-junior relationships are created. Earlier created boundaries have precedence over later created ones, Figure 6.

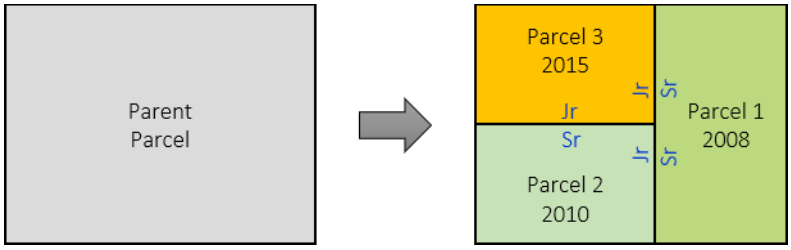


Figure 6

The senior-junior relationship is a *boundary* attribute, not an *owner* attribute. Once created the relationship does not change unless the boundary is dissolved by formal legal action. Property transfer does not alter it, nor does further subdivision of adjacent properties.

A child parcel inherits its parent's senior-junior relationship along a shared boundary, Figure 7.

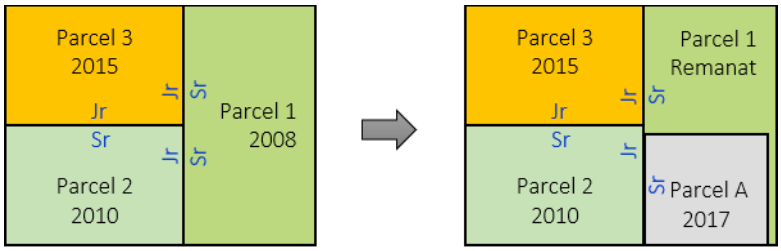


Figure 7

Along boundaries where senior-junior rights exist:

- The senior parcel is protected in the case of an overlap- the junior parcel yields.
- In the event of an excess, the gap is a remainder of the parent. This can be a touchy situation for the surveyor. The urge is to assign the gap to one parcel or the other, or split it between both because obviously the original intent wasn't for a gap to exist. There's always a danger in reading too much into intent:

  > "The question is not what reasonable men intended to convey but what they in fact described in the contract or memorandum." *Wiegand v. Gissal, 28 Wis. 2d 488 - Wis. Supreme Court 1965*

  A gap was created and not conveyed- it is not assigned to either parcel but is a remainder of the parent parcel.

3. Combination

Parcels created through a combination process may or may not have senior-junior relationships. Excess or deficiency is prorated or senior-junior relationships enforced: it depends on how the boundaries were created and descriptions are worded.

For example, consider a Lot is that sequentially divided into the "West 100.0 ft" later followed by the "East 100.0 ft."

- If the Lot is only 199.0 ft wide, the "West 100.0" is senior and receives its full 100.0 ft; the junior parcel gets only 99.0 ft, Figure 8.
- If the Lot is 201.0 ft wide, each parcel receives what its description calls for: 100.0 ft, Figure 9. This creates a 1.0 ft gap between the parcels which is the remainder of the Lot. This is the same as the gap situation discussed in Sequential boundary creation. As in that case, the gap is a parent parcel remainder.

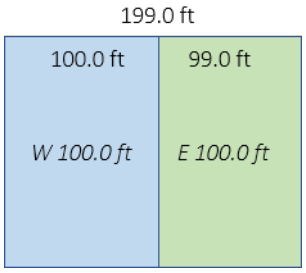


Figure 8

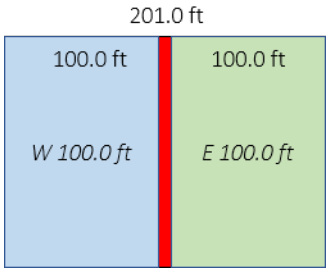


Figure 9

Changing the junior description to the Lot "except the West 100.0 ft"

- If the Lot is only 199.0 ft wide, Figure 10, the "West 100.0" is senior and receives its full 100.0 ft; the junior parcel gets what's left over: 99.0 ft.
- If the Lot is 201.0 ft wide, Figure 11, the senior parcel receives its 100.0 ft; the junior parcel gets what's left over: 101.0 ft. No gap is created

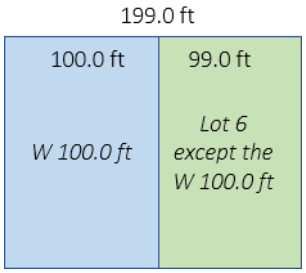


Figure 10

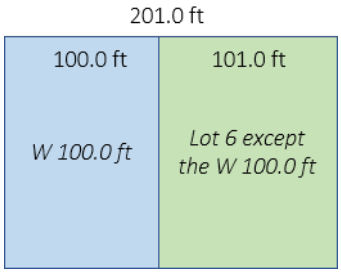


Figure 11

Although the intent may have been the same (for the grantor to divest himself entirely) the wording change can alter the effect when applied on the ground.

C. Written Intent

1. Background

a. Statute of Frauds

The *Statute of Frauds* (SoF) requires that for a contract between parties to be valid, it must be written. This prevents either party from later contradicting the contract terms by word or action. It also allows interested third parties to determine intent with reasonable certainty without resorting to assumptions or requiring explanation from either contract party.

A deed is a property conveyance contract. The description defines the physical extent and rights conveyed from grantor to grantee. When interpreted, effect has to be given to its terms and boundaries must be re-established within the limits of the description as shown in *Wiegand v. Gissal.* This means we don't locate a boundary where we *think* the parties intended, but where they *said* they intended- that's why it's in writing.

Most states have a codified statue of frauds which identifies elements needed for a valid written contract. They also have a statute defining required elements of a valid deed.

What about unwritten rights, how can they exist if they're unwritten? Though seemingly contradicting the SoF, common law doesn't view unwritten rights as a conveyance but as a clarification of an uncertain boundary. By their actions, owners are stabilizing their boundary location which courts view is their right. It's a bit more complex than that which is why it is a court's responsibility to determine ownership in these situations.

b. Description Interpretation

A simultaneously created parcel is described by reference to a map or plat. The plat shows measurement information, monuments, adjacent owners, easements, waterways, etc. Generally, unless there are conflicts in the plat information, intent is clear.

Parcels created in sequence or combination depend on narrative descriptions which may or may not reference a map. These narratives have greater potential for conflicting elements because many:

- Propagate archaic terms and "ancient" measurements due to lack of contemporary resurvey or its use.

  "...described as follows: Commencing at a point 20 rods 19 links North of a point that is 26 links East of the East side of the steel tube at the Northeast corner of the wagon bridge, that crosses the Sugar River, on the West side of the Southeast 1/4 of Section 34, thence North from said point 3 rods and 20 links, thence East 0 rods, thence South 3 rods and 20 links, thence West 8 rods to place of beginning,..." *(from a deed recorded in 1992)*

- Are written by non-surveyors who do not understand terminology or the RoC.

  "Commencing at the West 1/4 corner of Section 9; thence N80° 29ft 17in. East, 2781.62 ft; thence S89° 11ft East, 177.84 ft; thence S34° 04ft 40 in East, 123.68 ft to the point of beginning;..." *(from a deed recorded in 1996)*

Regardless who wrote the description, the surveyor must follow common law principles to interpret and physically establish its boundaries.

c. Controlling and Informative terms

In order for metes and bounds and quasi-metes and bounds descriptions to be truly valid and their corners located, the description of each individual line or course should have some controlling terms. These define the end point and/or path for each property line. All other terms in the same line description are informative, helping to differentiate the controlling element from similar elements. If there is no control with a course description, then how can its deed location be ascertained?

How do we determine what the controlling term is? Look for words indicating a condition like "to" or "along."

Example: "..thence North 38 degrees West 139.6 feet **to** an iron stake..."

The course must go to and end at the iron stake (*to*);

Because the monument is a higher RoC element, distance and direction yield if they conflict.

Example: "...thence southwesterly **along** said high water mark **to** an iron stake..."

The course ends at an iron stake (*to*);

> But now the course is an irregular path following the waterway (*along*)- the general direction yields to the topographic feature.

Other words indicating controlling terms include (but are not limited to): parallel, perpendicular, continuing, being, at right angle to. These all indicate some originally intended condition. When any of those appear in a description, that puts us on notice that the RoC order may have to be modified.

d. Ambiguities

1. Extrinsic evidence

Boundary re-establishment is based on collecting, evaluating, and weighing evidence to determine a boundary's most likely original location. In addition to the written description and its original physical monumentation, we have to consider *extrinsic evidence*.

Extrinsic means "outside", so extrinsic evidence is from outside the written description. This can include physical evidence not referenced by the description but which exists because of the description (eg, fences, tree lines, etc) as well as competent parol evidence.

Extrinsic evidence cannot be used to change the terms of the description, which would violate the SoF, only to help explain them.

> Example: A description calls for a wooden post, but an iron pipe is found instead. The pipe can be accepted as a replacement if it is correctly placed and documented.

2. Ambiguity Types

An ambiguity exists when a term can be *reasonably* interpreted in more than one way. Unfortunately, it is easy to introduce ambiguities particularly if the description writer does not understand the RoC, controlling and informative terms, the role of physical evidence, etc. What might make sense to the writer later may be difficult to establish if terms used are unclear or have multiple interpretations. This can be exacerbated if the description was not based on a survey.

There are two kinds of ambiguities: *latent* and *patent*.

(a) Latent Ambiguity

Hidden; in reading the terms are clear but ambiguity arises upon their application. It's not readily apparent from the wording.

Example

> "Commencing at a point 84 1/4° East of the center of Section Seven (7); being station "A" having bearing tree viz; a black oak 14 inches in diameter, South 6° East 57 links distant, (said black oak being North 84 3/4° East, 24 7/25 rods of Stephen A. Thayer dwelling house), thence..." ***(from a deed recorded in 1999)***
>
> Although the deed was recorded in 1999, the description propagates old measurements and monument calls. Whether the black oak and Thayler's house, or their remains, still exist will not be known until field investigation. If neither can be found then extrinsic evidence is needed to determine their original locations. This clarifies the terms but does not change them.

(b) Patent Ambiguity

Obvious; visible on the face of it; realize there is an ambiguity by inspection. Apparent from the words in the description that here is a problem.

"... thence S55° 55ft 20in West, 15.36 ft;" ***(from a deed recorded in 1996)***

A patent ambiguity cannot resolve by extrinsic evidence since there is a mistake in the original contract. If possible, the mistake must be determined (in some cases requiring court intervention) and a correction applied. The mistake should be legally documented to include it in the chain of title.

2. Call for Survey

Boundaries that are monumented and surveyed can control only if a conveyance is based on them. An example is the USPLS, of which one premise was “survey before sale.” Most state subdivision statutes require that lots and streets are monumented as part of the approval process. These are typical for simultaneously created properties but may also apply to sequential and combination parcels if the survey is identified in the description

3. Monuments and Corners

a. Monument, Corner: What’s the Diff?

A *corner* is a location where a boundary changes direction. It has a position but no physical characteristics. A *monument* is a physical feature used to mark a corner location. It has physical dimensions but the structure itself is subordinate to a corner location. A monument, providing it controls, is a corner surrogate.

b. Monument

(1) Control

A monument must satisfy three requirements to control corner location over lesser RoC elements. It must be:

1. Called in the description
2. Identifiable
3. Undisturbed

A replacement monument can stand for an original one if its lineage is documented. The surveyor must determine from the documentation and any other evidence if the replacement monument is acceptable, Figure 12. If not, lesser RoC elements might control corner location.

Figure 12

A monument meeting those conditions can exert two kinds of control over a property boundary:

- direction *and* termination
- direction *only* when the corner location encroaches on a higher right or claim. Line termination is determined by the higher claim.

The latter is the case with USPLS closing corners which were intended to be placed on a township boundaries.

(2) Accessories

Nearby physical objects to which corners are referenced for their future identification or restoration. Accessories include bearing trees, mounds, pits, ledges, rocks and other natural features to which distances or directions (or both) from the corner or monument are known. Accessories placed when the monument is set are considered part of the monument.

While commonly used in USPLS surveys, accessories may also appear in a narrative description:

"Commencing at an iron stake 81 feet West of a point on the West side of a highway on Section line between Sections 3 and 4, Township 6 North, Range 10 East, and said point being 237 feet from intersection of West side of highway and high water mark of Lake Waubesa, from which iron stake an ash tree 11 inches in diameter bears North 74 degrees East, magnetic bearing 14 feet and a double ash tree 16 and 8 inches in diameter bears South 58 degrees East, magnetic bearing 39 feet; thence..." (*from a deed recorded in 1997, Dane Co*)

(3) Corner Disposition[1]

Disposition is the certainty of corner location based on available evidence.

- **Existent (Found)**

  The corner position can be identified by verifying the evidence of the monument, or its accessories, by reference to the description that is contained in the field notes and other original documents, or where the point can be located by an acceptable supplemental survey record, physical evidence, or testimony.

- **Obliterated**

  One at where there are no remaining traces of the monument, or its accessories, but whose location has been perpetuated, or the point for which may be recovered beyond reasonable doubt, by the acts and testimony of the interested landowners, competent surveyors, or other qualified local authorities, or witnesses, or by some acceptable record evidence.

- **Lost**

  Corner whose position cannot be determined, beyond reasonable doubt, either from traces of the original marks or from acceptable evidence or testimony that bears on the original position, and whose location can be restored only by reference to one or more interdependent corners.

(4) Corner by common report

Common report is corner location acceptance based on reputation (eg, *common* law). The location must meet three conditions:

- Reasonable location
- Accepted by all owners as the correct location.
- The location cannot be disproved

Surveyors should avoid using this as corner location justification. The first two conditions are heavily influenced by unwritten rights, for which a surveyor has no jurisdiction. Final corner location should be supported by evidence collection and evaluation.

4. Measurements

a. Distance and direction

Where monuments are not called, or are called but lost, the next elements to re-establish corner position are direction and distance. Distance is usually easier to recreate than direction, particularly if a magnetic direction was used. If two adjacent corners are found, they can be used to determine original direction basis.

1 Definitions are from the *Glossaries of BLM Surveying and Mapping Terms*, PDF version, 2003.

While a monument has finite dimensions, depending on how they are made or expressed in the description, measurements can be variable. If a course description is "...thence North, 200 ft;" how close to "North" must it run? Is the distance accurate to 1 ft, 10 ft, or 100 ft?

On the other hand, contemporary descriptions sometimes overstate accuracy: bearings to 0.1 seconds and distances to 0.001 ft. Or sometimes, you have to scratch your head:

> "...thence S88°16'52"W, 0.30 feet to the existing east line of Section 1, T5N, R9E; thence S00°18'01"W, 0.01 feet along said east line of Section 1; thence S00°18'01"W, 33.20 feet along said east line;..." *(from a deed recorded in 2002)*

Try measuring 0.30 ft and 0.01 ft in specific directions. Equipment setup and pointing errors can easily exceed these distances.

b. General directions

General directions do not include a numeric value and end with a *erly* suffix eg, n*orterly*, *easterly*, etc. A general direction is an informative term indicating a range of possible directions, Figure 13.

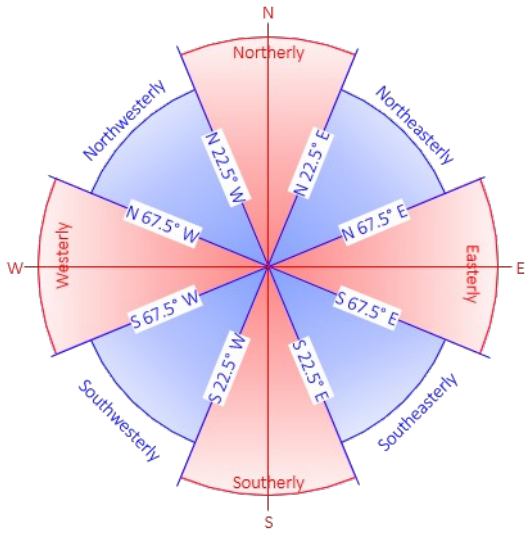


Figure 13

There are eight general directions:

- four centered on the cardinal directions (red)
- four at 45° to cardinal (blue)

Each covers roughly 45°.

A line whose bearing falls between N 22.5° E and N 67.5° E has a northeasterly general direction.

Because it is a range, a general direction requires some form of controlling term to specifically fix direction or path.

> Example: "...S10°22'E, 175.0 ft to Mahun River; thence easterly along Mahun River to..."

Each general direction range is approximate so these are not strict definitions. But an ambiguity can be created if a general direction call wanders too far out of its range.

c. What's a conflict?

Example:

> The last two courses of a description are "... thence S18°20'W, 283.2 ft to a 1/2-inch iron pin; thence 220 ft back to the point of beginning."

All corners have been recovered with no issues until the last one before the POB, Figure 14.

> No monument evidence is found at S18°20'W, 283.2 ft, point A.
> A 1/2-inch iron pin, is found at S17°50'10"W, 285.72 ft, point B.
> Positions A and B are approximately 3 ft apart.
> Distances measured from the POB are 220.5 ft to A and 224.52 ft to B.

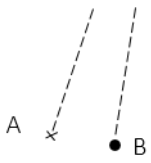


Figure 14

Although a found called for monument controls over direction and distance, does point A fit the closing line better than the pin at point B? Can lower elements control over higher ones without extrinsic evidence?

Is the 224.52 ft distance from B to the POB within the uncertainty of the 220 ft description call? How much must course elements differ for them to conflict with each other?

5. Area/Coordinates

a. Area

Generally, area and coordinates are the lowest elements because they are computed from higher ones.

It is understood that areas on USPLS plats are *nominal* or *legal* areas. A regular Section is 640 acres, although it can be larger or smaller depending on convergence, survey errors, etc. Subdivision laws generally require lot areas be included on the plat. Most metes and bounds ad quasi-metes and bound descriptions include an area call in the summation. In these gases, area is usually informative and yields to higher elements, particularly if accompanied with "more or less."

Area is a controlling term if the original intent was to convey a specific amount: "...the Easterly 2 acres" or "...the southeasterly half." The line(s) must be established so as to enclose the intended amount.

A common problem problem with area calls is using multiple units:

> "...said parcel containing 53,245 sq ft or 1.2 acres..."
>
> These are incompatible accuracy levels: is the grantee being give a choice of areas?

b. Coordinates

Although we may be used to collecting coordinates with GPS, these are still derived quantities and yield to higher elements. Can coordinates be controlling terms? Historically that hasn't been the case, but...

> "...thence Northerly 487 feet, more or less, to GPS waypoint, Lat. 43.828655, Long.-90.661033; thence Northwesterly 296 feet, more or less, to GPS waypoint, Lat. 43.829424, Long.-90.661390; thence Westerly 298 feet more or less, to GPS waypoint, Lat. 43.829516, Long.-90.662515;..." (*from a deed recorded in 2005)*

There are no monument calls, distances are informative, so the waypoint coordinates control course directions and terminations. Units are not given on the coordinates, but it appears they are decimal degrees. Are they accurate to 0.000001° (0.0036 seconds)? Which datum and adjustment?

6. "...more or less"

more or less (*approximately*, *plus minus*, *about*) is used to indicate a quantity of unknown certainty. The deed element is approximate and informative not controlling.

Approximate elements can help clarify controlling ones. Because water boundaries can move over time, meander corners are used to locate the water at time of survey. On a map the approximate distance between a meander corner and the water boundary is typically shown with a ± suffix ("25 ft ±"). It equivalent in a description would be "...to a meander corner located 25 ft more or less southeasterly of Moon Lake;..."

Used without a controlling term, "more or less", "approximately", and "about" are patent ambiguities.

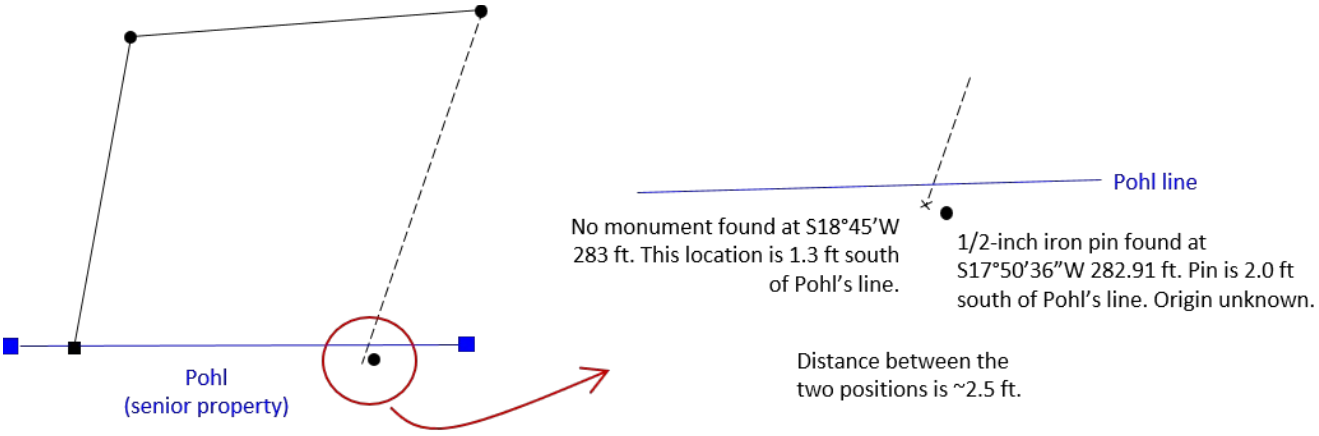
Example:

> "...thence running in an Easterly and Southeasterly direction along the South and Southwesterly line of private road that is used by the grantee herein a distance of about 28 rods; thence..." (*from a deed recorded in 2001*)
>
> The course does not have a controlling termination point.

7. Example Conflicting Elements

The description of a property is:

> "...Beginning at a 1-inch diameter iron bar in the north line of the Pohl property; thence N10°20'E 241 ft to a 1/2-inch iron pin; thence N85°35'E 267 ft to a 1/2-inch iron pin; thence S18°45'W 283 ft; thence back to the point of beginning"
>
> The surveyor performing the property resurvey finds the first two courses with no issues. However, the third course presents a dilemma. The magnified diagram below shows the situation with the third course.



Assuming no other evidence is available and using only the description, how should the surveyor locate the last two courses?