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# SIDE SHOTS

Professional Land Surveyors of Colorado

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# Rule of the Month: 38-51-104 Monumentation of Land Surveys

By Earl Henderson, PLS

Monumentation of the corners as we determine them during the course of a Monumented Land Survey should be second nature to all of us. But the details appear to me to be getting lost. So I'd like to review some of those details.

CRS 38-51-104(1)(a) requires that we monument the corners as we determine them with "reasonably permanent markers solidly embedded in the ground." I'm hoping that we all know this already. (b) requires that a cap bearing the license number of the PLS who is responsible for setting the monument be "...affixed securely to the top of each such monument...". Notice that in reading these two statutes together it is clear that the cap is not the monument. The cap is an identifier to the monument and is securely affixed to the monument, but the cap is not the monument. Therefore, if on your plat you are describing the monuments you found or set as "aluminum cap" or "yellow plastic cap" with no more description about what the cap is attached to, you are

not describing the monument. And as we all know we are required to fully describe all monuments, both found and set, on our plats (CRS 38-51-106(1)(f)) correctly (Board Rule 6.13).

But let's think about this monumentation thing a bit more. Suppose you determine that the corner is not where you found an existing monument. We've all seen those notations "actual corner lies 0.09' North and 0.06' West". If this is noted on a plat, then that PLS has clearly determined that the corner is not where they found a monument and in addition that PLS has not monumented the corner location as they have determined it. Now we can get into a multitude of arguments about if this is the right determination to make. But that's not the purpose of this article. (Well in a way it is because I'm trying to discourage you from making that determination and being forced into setting a pincushion monument leaning over top of a found monument.) But think about that notation for a minute. It clearly states that the corner is not where

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the found monument lies. If that's the case, then that PLS must monument the corner as they've determined it. They can't set an offset punch hole in the found cap because that monument and cap was set by the earlier PLS to be in the correct corner location. They would be defacing the monument of another PLS, and that might make someone angry. And "No marker...shall bear the license number of more than one professional land surveyor"(CRS 38-51-104(6)). Yet they are required to monument the corner as determined with a monument and "durable cap bearing the license number of the professional land surveyor responsible..."(b), that being themselves. So they can't offset punch hole the existing cap and add their license number. So if you want to make such a determination, you are forced by statute to set a pincushion monument and to document why you did so based on BR 6.5.4.1 on the face of your plat. In other words, you have to be able to defend your reason for setting a pincushion monument on the face of the plat, to your client, to all of us and most importantly to the judge. Because let's face it, if you can't stand in front of a judge and make them understand why your determination of the corner landed on someone else's cap but that wasn't good enough, then you shouldn't be making that determination. Plus, this kind of determination is a result of finding reasons to disagree with prior surveyors when we should be looking for reasons to agree with them and maintain the status quo of our clients.

In my humble opinion, there's no way that such a determination can be made in any way other than it being based on the presumed ability of the PLS to better measure dimensions than the prior PLS who set the existing monument. But how could you know that? How can you know what precision the previous surveyor was able to attain? And what is your current precision? Are you using GPS? What errors are being accepted, balanced and possibly even ignored in the entire system of your survey? If you're traversing, what's your closure? Is it anywhere near the difference you're showing in the statement quoted above? And is it possible that the prior PLS was able to attain equal or better precision than you? But more importantly, if these are the criteria you're using to make the determination, your using the wrong criteria and asking the wrong questions.

1. Is the found monument the original monument? If so, it has no error. It has defined the corner by virtue of being set as the original monument regardless of any imprecision, error, or even blunder.

2. Was the found monument (not original) set within a reasonable precision for the time it was set? If so, then

accept it. Just because we are able to better measure than our forefathers from the ancient past in 1995, doesn't mean they did it wrong. They did well in most cases I've seen. Presumably our equipment and abilities are more precise than way back then, but again, that doesn't make them imprecise or incorrect for their era.

3. What are the legal implications of using the found monument or setting a new monument? Does the found monument agree with the lines of occupation? Or the testimony of the client and adjoining owners? Have you even asked?

And these are just a sampling of the many questions you should be asking yourself, not to mention the experience you should be bringing to bear when analyzing found evidence. I recently discovered that several PLS's were using a found #4 rebar that had presumably been set as a lot corner in a subdivision in 1962. But when I took a quick glance at the rebar it was obvious that it had been placed in some roots of a tree on an embankment only recently. The grading activity for the driveway had either covered up the original monument or the original monument, the #4 I found, had been picked up and set down somewhere else. But hey, it was only an 8' difference.

If you're making corner determinations based on dimensions and measurements, then you're making the wrong decisions. Our task, in retracement surveying, is to collect data on all the evidence and make determinations based on the evidence, then describe those determinations on our plats. Our task is NOT to take the dimensions and place them on the ground regardless of the ground conditions (evidence). Nor is our task to force record dimensions to fit the evidence. Our measurements of the found evidence and monumentation should be different from what's on the plat or in the description. We can count on that. Our equipment and abilities are more precise than those in whose footsteps we follow. But just because we can measure better than the PLS that was there 50 years ago or even yesterday, doesn't change the line that is well established. Our task in a retracement is to determine where that line is, not where we want it to be or where it was intended to be or where it would have been had it been originally monumented to perfection according to the record dimensions.

Enough for now. It's time for me to get off this high horse and go dig up some evidence somewhere.

Be safe out there.