

**From:** John F. Bennett <johnf\_bennett@dot.state.ak.us>  
**Sent:** Wednesday, July 31, 2002 1:46 PM  
**To:** MARTIN SHURR  
**Cc:** James H Sharp  
**Subject:** Fw: DOT Survey Control Drawings

I thought Doerflinger was the adjudicator between the surveyors and engineers. It looks more like he is the advocate for the engineers.

----- Original Message -----

From: Scott McLane  
To: 'John F. Bennett'  
Sent: Wednesday, July 31, 2002 11:58 AM  
Subject: RE: DOT Survey Control Drawings

John

Here are the email messages sent between the Board and Duane

Date: Fri, 26 Jun 2002

Nancy,

I have read through both the response of the survey board members and AS08.48.341(13).

I find nothing in the statute that precludes the location of a construction centerline by referencing adjacent land monumentation on construction plans.

The board's response seems to deal with the requirements for land surveying and does not appear to address establishing a construction centerline. The construction centerline is not necessarily the centerline of the highway right-of-way, although they do coincide in many cases.

The highway right-of-way centerline and boundaries are separate from the construction centerline and established, monumented and recorded by licensed land surveyors. The construction plans and construction centerline are not land survey documents. Any monumentation that may be used in land surveying (i.e. either roadway centerline or inter-visible monumentation) is established and recorded by a surveyor licensed to practice in Alaska following construction of the project and will not be depicted on the plans.

Many times existing land monumentation is depicted on the plans to caution the contractor that it exists and should not be disturbed. Any monuments disturbed by the contractor during construction operations must be reestablished by a surveyor licensed to practice in Alaska.

Since this question involves both surveying and engineering it may be helpful to include both survey and engineering board members (especially board members who have experience in design and construction of highway projects in Alaska) in a review of this question so that an understanding of the difference between the construction centerline and right-of-way centerline and their function is clearly understood by all.

Following are my original question and the board's initial response for reference.

In summary, highway and airport construction plans, including construction centerline, are not land survey documents. They are for the sole purpose of constructing projects. Land survey (right-of-way) documents and monumentation are completed separate from construction plans and are done by surveyors licensed to practice in Alaska. I would appreciate another look at this question by the board.

Thank you,  
Duane

Date: Fri, 21 Jun 2002 10:30:00 -0800

From: Duane Doerflinger <duane\_doerflinger@dot.state.ak.us>  
Organization: Alaska DOT/PF

X-Mailer: Mozilla 4.78 [en] (WinNT; U)  
X-Accept-Language: en  
MIME-Version: 1.0  
To: Nancy J Hemenway <nancy\_hemenway@dced.state.ak.us>  
Subject: Survey control for highways.  
Content-Type: multipart/mixed;  
boundary="-----A5D714ACFE1AC270D1EB08E9"

Nancy,

The receptionist at your office referred me to you concerning the following.

We are in the process of creating a plans standardization guide for highways and airports. The guide is for the use of both in-house project personnel and consultants hired by the Department. One segment of the guide will deal with creation of survey control sheets. There has been some comment concerning the use of existing land survey monumentation in establishing a construction centerline.

It is our intent to provide guidance which will allow a professional engineer to establish a centerline for purposes of constructing a highway or airport by either:

- \* providing Department established project centerline survey control (for use in construction of the project only) or
- \* by referencing existing land survey monumentation adjacent to the project as survey control.

Use of existing land survey monumentation to establish construction centerlines is a procedure that has been used by ADOT for many years in much the same way as engineers and architects use existing lot corners to locate a structure on a parcel of property.

Final, recorded, project monumentation and resetting of any disturbed land survey monuments will be completed by land surveyors licensed to practice in Alaska.

Would you confirm that the above practice is acceptable under current State statute/regulation or provide reference to statute or regulation which requires construction centerlines to be established by registered land surveyors?

If you have questions or need clarification please feel free to contact me.

Nancy

Please inform Mr. Doerflinger that only Professional Land Surveyors by definition "AS08.483.341(13)" can locate property boundaries utilizing survey monuments. Any survey control sheets which depict any survey monuments that relate to a land survey monument, right of way line, right of way centerline and or property boundary can only be prepared by a P.L.S. according to this definition.

Engineers and Architects can not use land survey monuments as a basis for their surveys. Typically public facilities including highway and or airport construction centerlines are related to the right of way line and or a property line. This is a task that only a P.L.S. can perform.

Scott

Nancy

The "practice of land surveying" definition is the only one that includes the words "location and monumentation of property boundaries". When the ADOT establishes survey control for construction centerlines based on land survey monuments this work can only be performed by a professional land surveyor. I don't see any room for any other interpretation in statute or regulation.

Scott

I have concerns. It sounds like they are setting up to do most of their work with an engineer, then get a land surveyor to set any monuments. It sounds deceptively simple too, just come off the existing monuments, establish centerline and you are go. Bring in the surveyor after the job is done.

Well, what are they going to do when there is ambiguity, and the monuments do not fit? adjust the boundaries of the ROW by good boundary survey practice, I guess. They can always brief the surveyor on what they did and why later. It is technically legal for engineers to use ROW monuments to set control for engineering surveys, which is what construction surveying is. But it is not proper for them to adjust the ROW. Most of this work is done by surveyors.

The example is really poor - when engineers and architects use boundary monuments to establish where the structures are on a parcel, they are practicing outside of their area of expertise. Unless the purpose does not include determining where features are in relation to boundaries.

Pass this on to John Clark, please.

- Pat

-----Original Message-----

From: John F. Bennett [[mailto:johnf\\_bennett@dot.state.ak.us](mailto:johnf_bennett@dot.state.ak.us)]

Sent: Wednesday, July 31, 2002 8:44 AM

To: Scott McLane

Subject: Fw: DOT Survey Control Drawings

----- Original Message -----

From: John F. Bennett

To: [msmclane@mcclanecg.com](mailto:msmclane@mcclanecg.com)

Sent: Wednesday, July 31, 2002 8:24 AM

Subject: Fw: DOT Survey Control Drawings

----- Original Message -----

From: John F. Bennett

To: [msmclane@mcclanecg.com](mailto:msmclane@mcclanecg.com) ;

Sent: Wednesday, July 24, 2002 8:21 AM

Subject: DOT Survey Control Drawings

Scott & Pat: A few months back, John Kerr, the Locations Surveyor in DOT Central Region may have brought an issue regarding control surveys to one or both of you as the Land Surveyor members of the AELS Board. John has now moved on to another organization, however, we still have the issue to deal with. In a nutshell, DOT is an engineering organization. This at times results in an attitude that an engineering decision should always override the decision of another profession, without regard to the statutes defining the areas of practice of AELS professionals.

Specifically, the issue has to do with control survey drawings that are placed in a set of construction plans. The purpose of the control drawings are to build the project according to specifications and to also ensure that the project is built within the public ROW. So the design survey that leads to the control drawing is performed by a Licensed land surveyor and ties to various control and property monuments are made to establish a relationship between the project and the surrounding properties. Traditionally and in my interpretation, according to the law, the control drawing is to be sealed by the PLS. A few engineers have decided that the control drawings produced by land surveyors take up too much space in the plan set. They have argued that there is too much information and that they don't understand it. After the public has spent thousands of dollars on a design survey, they want the control information limited to the designation of two horizontal control points from which the construction surveyor will reproduce all of the control initially tied or set by the design surveyor. They have also suggested that the control survey drawings placed within the design plans may be sealed by the engineer.

Yesterday I was made aware that Duane Doerflinger of our HQ in Juneau had contacted the AELS board about three weeks ago to obtain clarification of what constitutes land surveying as it relates to construction plans. I presume that when the board receives questions such as this, they solicit the input of the Land Surveyor members.

I initially thought this issue would be resolved internally to DOT. Now that I see it has gone to the board I am concerned whether the entire issue has been presented for consideration. Therefore, I am attaching the memo I prepared as comments on the issue to Duane Doerflinger. This may shed a bit of light on the issue from the DOT surveyors position. Duane has been assigned the task of taking comments from the design engineers and the surveyors, resolving the issue and coming up with a policy. My concern is that the worst case scenario of reverting to having engineers in responsible charge for DOT survey work does not occur. Please feel free to contact me if you need more information.

Thanks, JohnB