

County of Orange

Public Facilities & Resources Department

Geomatics/Land Information Systems

John W. Sibley, Director

William L. Zaun, Deputy Director/Chief Engineer

John Canas, County Surveyor

“MONUMENTATION POLICY”

Prepared by:

Michael B. Emmons, Deputy County Surveyor

Robert D. Vasquez, Senior Land Surveyor

May 2, 1997

Orange County Board of Supervisors

Charles V. Smith
First District

Todd Spitzer
Third District

James W. Silva
Second District

William G. Steiner
Fourth District

Thomas W. Wilson
Fifth District

Geomatics/Land Information Systems Office

***Monumentation Policy
Tracts and Parcels***

The following is an excerpt from the Orange County Subdivision Manual as it relates to the monumentation of Tracts and Parcel Maps, located in the Unincorporated Territory of Orange County:

A) Boundary Monuments

Each Final tract or Parcel map shall indicate the setting of acceptable, durable monuments as shown on the attached reference sheet titled “ Monumentation Policy Supplemental” dated May 2, 1997, or as approved by the County Surveyor, at each boundary corner or at an offset and at intermediate points as may be necessary by topography or contour to facilitate recovery of any point or line without the unreasonable difficulty, except at corners where substantial monuments which are easily identifiable are found. The position and character of each found and set monument shall be shown on the map. Any monument found or set shall have its relationship to the surface of the ground shown on the map. Sufficient boundary monuments or references thereto shall be in position prior to recordation of any tract map to conform to the requirements of Section 66495 of the Subdivision Map Act. The BC’s, EC’s, PRC’s, and PCC’s along the street R/W need not be set if the street centerline is monumented and tied out at these locations.

[Rebar and plastic caps are not accepted by the County Surveyor as being durable monuments.]

B) Lot/Parcel Monuments

All lots and parcel corners shall be monumented and said monuments shall conform to those as shown on the attached sheet titled “Monumentation Policy Supplemental” dated May 2, 1997.

C) Centerline Monuments

All centerline intersections of streets and alleys and the beginning and end of curves shall be monumented with spike and washers (1/2" dia., 6" long) stamped with the L.S. or R.C.E. number of the person preparing the map. In addition, Orange County type 'A' or 'B' survey wells, or equivalent, with subsurface monuments, shall be placed within public streets in strategically located positions throughout the subdivision so as to enable the survey to be readily retraced. The number and location of such monuments shall be as directed by the County Surveyor.

D) Monument Ties and Notes (Public streets)

The Engineer or Surveyor under whose supervision the survey has been made shall furnish to the County Surveyor a set of tie notes. Such set of notes must be of such form and comment as needed to conform to the standardized records of the County Surveyor and be acceptable to him. These notes shall show the ties between the moments marking public street centerline intersections and other centerline control points which are set or found and sufficient number (not less than four) of durable distinctive reference points (lead and tack or equal). The use of property corners as ties is encouraged in order to avoid confusion and duplication of labor.

E) Deferment of setting of monuments

The map shall show which monuments are set and which monuments are to be set on or before a specific later date. All monuments and monument ties and notes so deferred shall be agreed to be set and furnished by the subdivider. Such agreement shall be accompanied and guaranteed by adequate and acceptable security guaranteeing the payment of the cost of setting such monuments. The amount of the security posted must be agreeable to the County Surveyor. The County Surveyor, at his discretion, may require the placing of monuments sufficient to control the boundary prior to the specified date mentioned above.

F) Identification marks on set monuments

All monuments set as required herein shall be permanently and legibly marked or tagged with the registration or license number of the engineer or surveyor under whose supervision the survey was made.

G) Identification marks on found monuments

Monuments found and accepted for control of boundary lines and which are not marked with the registration or license number of an engineer or surveyor, or agency shall be marked with the registration or license number of the engineer or surveyor under whose supervision the survey was made and so indicated on the map. This requirement pertains to those monuments which the surveyor/engineer uses as control for the establishment of the boundary of his survey, i.e., street centerline intersections, lot corners, block corners, etc. and is based on opinions by the Attorney General, State Board of registration and the County Surveyor. It is not the intent of this article that all untagged monuments shown on the map need to be tagged. In lieu of removing an untagged monument and replacing it with a tagged

one, four suitable and durable tangent over ties may be set at a reasonable offset to the found monument.

H) Monuments found out of position

When a boundary monument is found out of position, a new monument should be placed at the proper position if by doing so the found monument is not disturbed. If the monument cannot be set without disturbing the old one, an offset may be set. Monuments out of position shall be shown accentuated in scale on the top of the map.

Upon notification by the engineer or surveyor preparing the map, the County Surveyor's Office shall perform a field check to verify that all monuments and ties have been set.

In the event that the exact character of a monument cannot be determined at the time the map is prepared, this note shall be placed in the monument notes: "-o- denotes set 1" I.P. LS/RCE XXXX or a lead and tag LS/RCE XXXX in concrete or a spike and tag LS/RCE XXXX in asphalt pavement, having a thickness of 2" or more."

Iron pipe should be set in asphalt pavement having a thickness of less than 2" to insure durability of the monument.

**Monumentation Policy
Supplemental**

A) Boundary Corners

All corners set on the distinctive boundary of a Tract or Parcel Map, or on any interior lot or parcel line to be further subdivided, or a Record of Survey for the purposes of future subdivision, shall meet the following criteria:

A 2" I.P. tagged LS/RCE #####, or a lead & tag stamped LS/RCE ##### set in concrete or a nail & tag stamped LS/RCE ##### set in concrete or a 8" spike & washer stamped LS/RCE ##### in asphalt or a tag LS/RCE ##### secured with epoxy.

B) Lot/Parcel Corners

All corners set on the interior corners of a Tract or Parcel Map, or a Record of Survey for the purposes of future subdivision, shall meet the following criteria:

A 1" I.P. tagged LS/RCE #####, or a lead & tag stamped LS/RCE ##### set in concrete or a nail & tag stamped LS/RCE ##### set in concrete or an 8" spike & washer stamped LS/RCE ##### in asphalt or a tag LS/RCE ##### secured with epoxy.

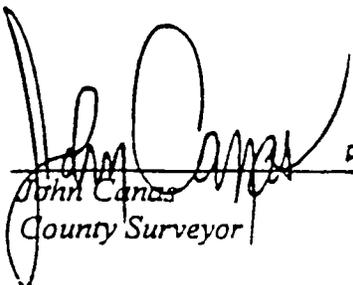
C) Centerline points of control

An 8" spike & washer stamped LS/RCE ##### in asphalt or lead & tag stamped LS/RCE ##### in concrete or a 1" I.P. tagged LS/RCE ##### in median.

D) Monumentation Identification

Any monument set by a license land surveyor or registered engineer to mark or reference a point on a property or land line shall be permanently and visibly marked or tagged with the certificate number of the surveyor or civil engineer setting it, each number to be preceded by the letters "L.S." or "R.C.E." respectively, as the case may be or, if the monument is set by a public agency, it shall be marked with the name of the agency and political subdivision it serves.

Note: The County Surveyor does not accept rebar and plastic caps as being durable and will not approve the setting of those type monuments for boundary control or boundary corners.

Approved:  5/6/97
County Surveyor Date

Approved:  5/7/97
Deputy Director/Chief Engineer Date