



Specifications for the Digital Submission of Cadastral Surveys

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City of Roseville Public Works & Community Development
Departments

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USE OF DOCUMENT

This document should be used for the digital submission of cadastral maps to the City of Roseville. Throughout this specification the organization accepting the digital submission will be referred to as the "receiving organization", the organization submitting the data will be referred to as the "submitter".

This specification will pertain to all tract maps and parcel maps as required per local ordinance and may be used for digital submission of records of survey.

This specification will be used for digital submission of cadastral maps in a local coordinate system or the California coordinate system.

INTRODUCTION

The use of digital mapping systems has becoming prevalent in local government organizations. Typically a parcel level land base is developed to serve numerous users in a multitude of applications. A major objective of such systems is to reduce redundancy and duplication in map maintenance. In order to enable automation of both the map checking and land base maintenance process, digital submission of cadastral surveys has been mandated in many local agencies. This document defines the specifications for such digital submission to the City of Roseville.

The specification has been written to take advantage of the ability of private organizations that are producing cadastral maps in a CADD environment to transmit this data quickly and efficiently. The intent of this specification is to enable the hard copy and digital submissions to be produced from the same digital data without any modification. The intent is to receive all data that is available digitally in digital form. There are minimum requirements that require certain data elements to be transmitted digitally while other data elements should be delivered digitally if available in digital form.

Submitters working in non-CADD environments may find direct conversion from hard copy maps the most viable approach.

A goal of the specifications is to define a specification that can be attained without a significant change in operational procedures for private sector surveyors. It should be noted however that in order to enhance the usefulness of the digital data some rudiments of structure are required. The only intelligence associated with the data is achieved through layering of the graphics, i.e., there are no data base linkage requirements of any kind.

Data submitted in accordance with this specification would be consistent with direct conversion by COGO to the parcel level assuming no adjustment of data. Small discrepancies would exist but would be limited to computational round-off error.

Submission of digital data may be used for computational purposes in checking the map, for maintaining digital land bases or in document retrieval systems.

FORMAT OF DATA FOR DIGITAL SUBMISSION

The digital submission will consist of: a graphical representation of required elements of the cadastral map as defined in this document.

Format for digital submissions of the graphic data, which will be accepted by all receiving organizations adhering to this document, is the DWG or AutoCAD format. The files may be submitted in AutoCAD Release 2000 or newer AutoCAD release. The specifications regarding the integrity of the data are format independent. The segregation or layering of the data is format independent. The segregation (layering) of the data is consistent across formats although different formats may use different terminology and conventions. Other specific information regarding element types, coordinate systems, etc. may be specified for each format.

DATA LAYERING REQUIREMENTS

The data will be layered into the following features: Description, layer name and entities, line type, text style and/or size, and pline width if applicable.

| DESCRIPTION | LAYER NAME AND ENTITIES | LINE TYPE, TEXT STYLE/SIZE | PLINE WIDTH IF APPLICABLE |
|------------------------------|--------------------------------|-----------------------------------|----------------------------------|
| Centerlines of Rights of Way | CL | CENTER | PLINE (0.00) |
| Rights of Way | RW | CONTINUOUS | PLINE (0.00) |
| Subdivision Boundary | SUBBNDRY | CONTINUOUS | PLINE (5.00) |
| Lot or Parcel Lines | PARCELS | CONTINUOUS | NA |
| Lot Numbers | LOTNOS | SIMPLEX (8) | NA |
| Street Names | CTY-STNAMES | SIMPLEX (15) | NA |
| Recording Subdivision Name | SUBNAME | ITALIC TRIPLEX(35) | NA |

In cases where a linear element between two points applies to more than one feature, e.g., a boundary line and lot line may be coincidental, this data may, at the submitter's discretion, be submitted as:

- 1) One graphical element utilizing the following hierarchy to determine the appropriate layer for the graphics data.

- a) City, County Boundaries) Centerlines
- c) Rights of Way
- d) Subdivision Boundaries
- e) Lots or Parcel Lines

By utilizing this approach there is no duplication of data.

2) Duplicated graphical data sets with each data layer containing a full definition of the feature. For example, a line between two points which is both a boundary line and a lot line would appear on both the subdivision boundary layer and the lot line layer.

3) A combination of 1 and 2 above. For example, lines which are both subdivision boundary lines and lot lines may utilize 2 above, while lines which are both right of way lines and lot lines may utilize 1 above.

CHECKING OF DIGITAL DATA

The digital data will be checked for the following criteria:

- 1) Entities not located on correct layer (per table)
- 2) Layer names inconsistent with table
- 3) Text font style and size other than shown on table
- 4) Unacceptable duplication of data
- 5) In DWG format, file must be saved under ACAD.mnu menu.

MEDIA REQUIREMENTS FOR DIGITAL MAP SUBMITTAL

The following information defines acceptable media for the submission of cadastral surveys in digital form. This information should be used in conjunction with the specification for digital submission of cadastral surveys. Receiving organizations may wish to supplement this information with requirements specific to the particular organization.

MEDIA

Each drawing file shall be submitted either via electronic mail (e-mail) or a CD ROM if file size is a consideration. File compression may be used if the file is self-extracting and does not require any special software or considerations.

If submitted by CD ROM, no additional information will exist on the submitting media aside from the data being specifically transmitted to the receiving organization. All media will be clearly marked with the proposed recording name (normally how it would appear on the map to record). Multiple drawing files requiring submittal may be submitted on the same media if the media is clearly marked as such.

File submittals via electronic mail (e-mail) shall be sent to the reviewing Engineer (?????) at the City of Roseville Public Works Department

In addition receiving organizations may accept alternate media at their discretion. The primary reason for this is to enable organizations with similar systems to transfer the data more efficiently. The submitter will be responsible for archival of the digital data until final acceptance.

All CD's will be submitted with labels indicating the following data and will be signed by the licensed Surveyor/Registered Civil Engineer submitting the map. The purpose of the signature is to

verify the transmittal of the data, not professional responsibility for the data. It is understood by the receiving organization that the digital data does not constitute a professional delivery. It is the responsibility of the receiving organization to refer to the recorded map for the correct information.

FILE NAMING CONVENTION

As mentioned before all submitted files shall be in AutoCAD Release 2000 or newer release AutoCAD format. The file(s) shall be named by their proposed recording name. The project name may be abbreviated if the complete name is clearly indicated on the submitting media.

The following are examples of acceptable file names:

PARCEL_MAP_STONERIDGE-LOT_13.DWG
or abbreviated
PM_SR-LOT_13.DWG

DIAMOND_CREEK_UNIT_1A-PH2.DWG
or abbreviated
DC_1B-PH2.DWG