

CAD Layering Specifications

For Land Plats Submitted within Johnson County, Kansas

Digital Drawing Specifications for Subdivision Plats Submitted within Johnson County, Kansas

Overview

The Johnson County AIMS program has prepared a set of CAD standards for the digital submittal of subdivision plat drawings within the county. The AIMS program will be working with developers and cities within the county to institute these standards. The purpose of defining these standards is to allow the county to import the plat data directly into their geographic information system (GIS). Adherence to the standards will allow for quicker plat approval and a quicker update of the county's AIMS data files, saving tax dollars while improving service.

In general, a GIS is a geographic database whose graphic elements are directly tied to non-graphic tabular database records. The graphics and databases are so intrinsically tied that changing the graphics alters the database records, while altering the database may alter the graphic display. There are significant differences between the county's GIS and data stored in a CAD-generated drawing file. Certain data standards must be met to ensure that data prepared with a standard CAD package such as AutoCAD can be quickly and easily converted into the county's GIS data format.

Following is the 'reserved layer' list that specifies the type of data to be drawn on each of the reserved layers: name, line type, color, width, font and text size specifications for any layers to be used in the description and filing of a subdivision plat within Johnson County, Kansas. In addition to the layering specifications, some general specifications apply, as shown below.

General Specifications

- All plats submitted within Johnson County will use Kansas State Plane Coordinates (NAD 83).
- All submitted drawings will be submitted in either DWG or DXF formats.
- No other data will be drawn on the reserved layers except those specified.
- Unspecified data may be added to the drawing file placed on a layer not specified for other use.
- No symbology, block, or text may be drawn on a reserved layer except those line, block, and text elements specified below.
- Symbology attributes (i.e., Font, Height, Width, Color) are merely suggestions for a possible "best practice." These will not be checked for compliance. AIMS understands that each firm will have their own look & feel to a plat; these suggestions will provide guidance, the most important aspect for AIMS is the distribution of Layers.
- Closure is critical for converting the CAD data into a GIS format.
- All text elements will be inserted as 'center' unless otherwise specified. In addition, each text element should be located near the center of the feature that it represents; for example, lot number should be located near the center of the lot.

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Layer Description

1 **Subdivision Boundary (Line or Pline)**

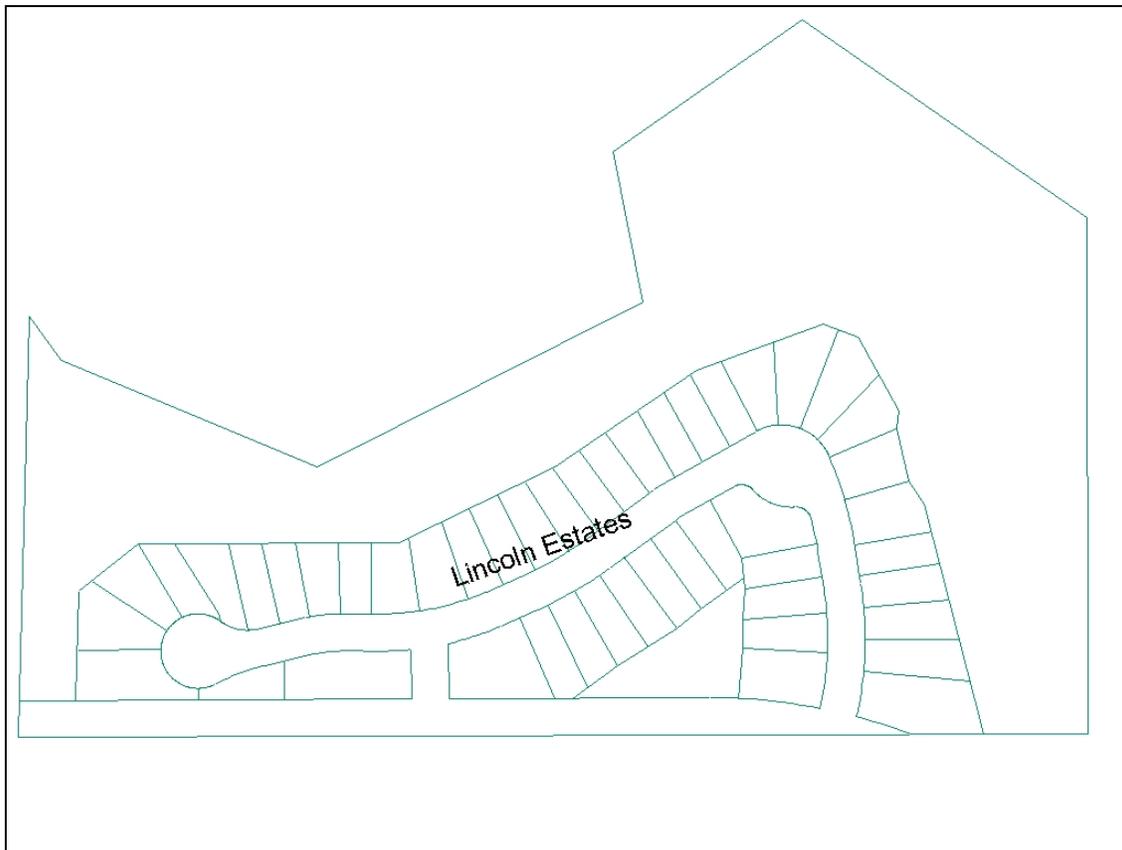
Line Type: Continuous
Width: 0.0
Color: 5 (Blue)

This line forms the legal limits or the outer boundary of the entire subdivision plat. It forms a closed polygon. This layer may be composed of many lines, but it should result in one and only one closed polygon for each subdivision.

1 **Subdivision Name (Text String)**

Font: Unspecified
Color: 5 (Blue)
Text Height: Unspecified

This is a text string with an insertion point located anywhere within the outer boundary of the subdivision (or line work on layer 1).



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2 Block Boundary (Line or Pline)

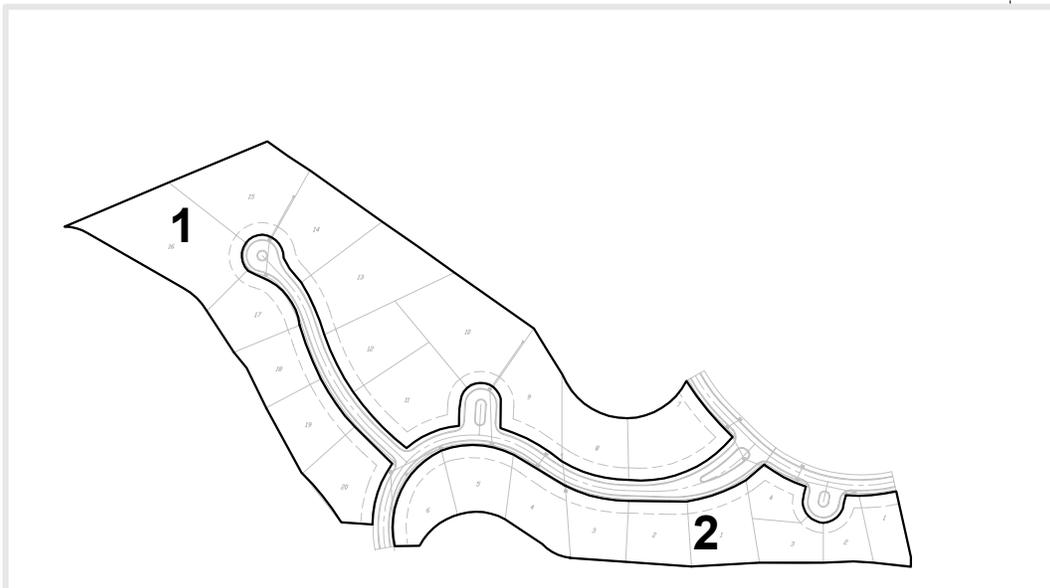
Line Type: Continuous
Width: 0.0
Color: 7 (White)

This line or set of lines creates the outer boundary of each block within a subdivision. Block boundaries are generally formed by a combination of right-of-way lines and the subdivision boundary. A block boundary may be further subdivided into many lots or it may not be further subdivided at all, as in the case of a common area such as a large street island or small park. It is also likely that the block boundary lines will be a set of lines that are duplicated on other drawing layers. These will usually be composed of right-of-way lines that bound a block. In this instance, this type of block boundary line will only be drawn if block numbering will be used as a part of the subdivision-block-lot legal description. (That is, the lots are described as lot 17 of block 2). If block numbering will not be used within the subdivision (and there are no common areas that will require a block designation), this layer is to be left blank.

2 Block Number (Text String)

Font: Unspecified
Color: 7 (White)
Text Height: Unspecified

The block number should appear once for every block boundary polygon. If there are no blocks within the subdivision, this layer should be left blank.



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3 **Lot Boundary (Line or Pline)**

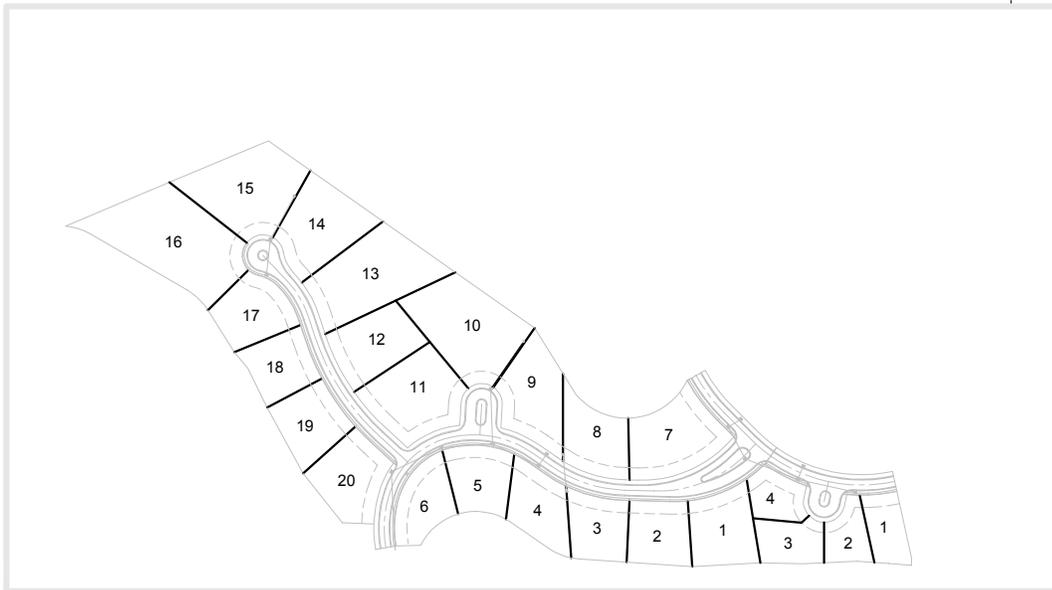
Line Type: Continuous
Width: 0.0
Color: 1 (Red)

Lines to be entered on this layer are those that separate one lot from an adjacent lot within the same subdivision, but are not a block boundary or a right-of-way line. These internal lot boundaries may be thought of as side-lot-lines and back-lot-lines.

3 **Lot Number (Text String)**

Font: Unspecified
Color: 1 (Red)
Text Height: Unspecified

The lot number should appear once for every lot within the subdivision. The lot number should be a text string with an insertion point within the outer boundary of the lot it identifies.



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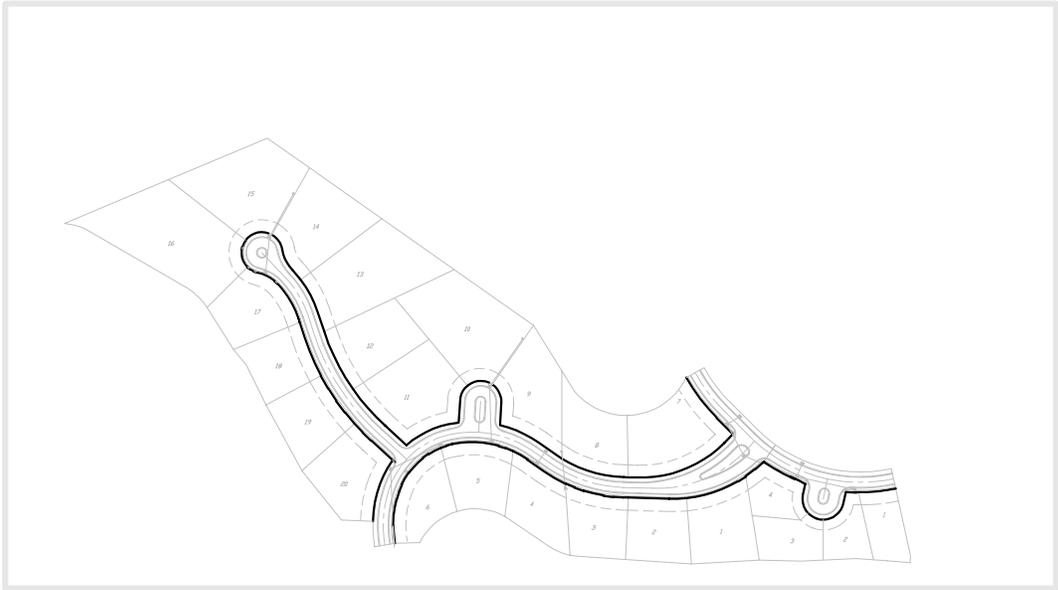
4 ROW Line (Line or Pline)

Line Type: Continuous
Width: 0.0
Color: 3 (Green)

A line used to divide the privately-held property from land to be publicly held, used, and maintained as public right-of-way. The endpoints of any right-of-way segment should be Osnapped to the end points of the following: lot boundary segments; other right-of-way line endpoints; or the subdivision lot boundary.

4 ROW Text or Street Name (Text String)

Street names should be input on the Street Centerline layer (15).



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5 **Public Common Area (Line or Pline)**

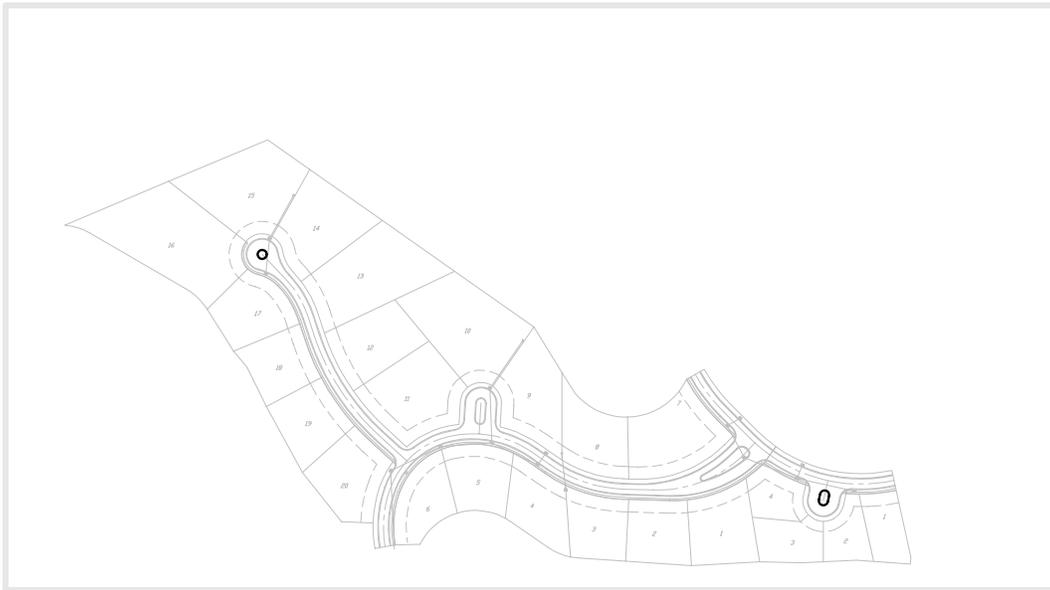
Line Type: Continuous
Width: 0.0
Color: 3 (Green)

A line which delineates an area of land that is to be platted and dedicated as a common public area, such as a street island or median strip that will most likely be included as right-of-way, and is not intended to have a lot and block legal description. This type of area may also be referred to as a 'tract'.

5 **Public Common Area ID (Text String)**

Font: Unspecified
Color: 3 (Green)
Text Height: Unspecified

If the common area will contain a tract number designation, that number should be included on this layer.



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6 **Private Common Area or Private Tract (Line or Pline)**

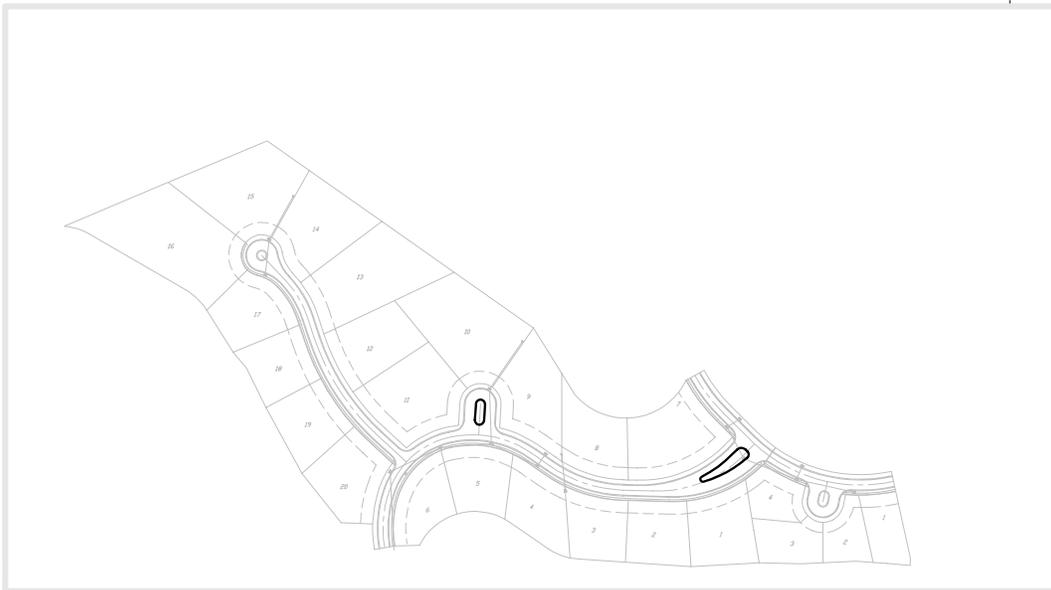
Line Type: Continuous
Width: 0.0
Color: 2 (Yellow)

A line which delineates an area of land that may be platted and dedicated as a common publicly held area (such as a street island, median or park space) that will be owned and maintained by a homeowner's association. This type of area may also be known as a 'tract'.

6 **Private Common Area ID (Text String)**

Font: Unspecified
Color: 2 (Yellow)
Text Height: Unspecified

If such an area of land is to have a tract number or description other than a lot and block number, that description should be entered on this layer.



7 **Easements (Line or Pline)**

Line Type: Unspecified
Width: 0.0
Color: Unspecified

Any easement information should be placed on this layer.

7 **Easement Text (Text String)**

Font: Unspecified
Color: Unspecified
Text Height: Unspecified

All descriptive text and easement dimensions should be placed on this layer.

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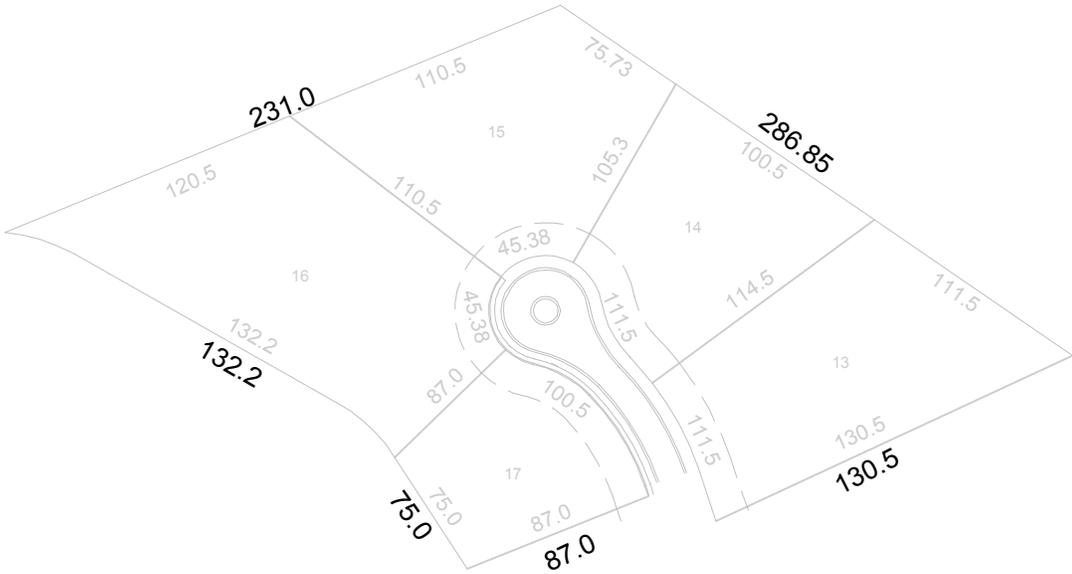
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Subdivision (Dimension) Annotation

10 Subdivision Distance (Text String)

Font: Unspecified
Color: 7 (White)
Text Height: Unspecified

Any descriptive text that describes the bearing and distance of a line element around the plat perimeter (layer 1).



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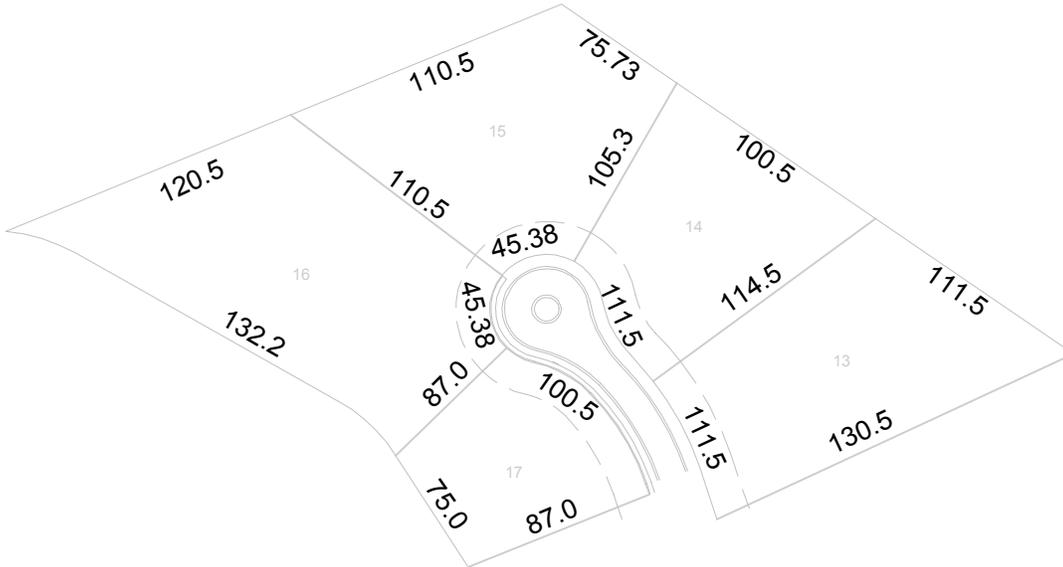
11 **Lot Line Distance (Text String)**

Font: Unspecified

Color: 7 (White)

Text Height: Unspecified

Any descriptive text that describes the bearing and distance of a line element defining an internal lot line (layer 3).



12 **Row Line Distance (Text String)**

Font: Unspecified

Color: 7 (White)

Text Height: unspecified

Any descriptive text that describes the bearing and distance of a line element defining a right-of-way line (layer 4).

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Proposed Improvements

15 *Street Centerlines*

Line Type: Continuous
Width: 0.0
Color: 5 (Blue)

This line delineates the centerline of the street.

15 *Street Annotation (Text String)*

Font: Unspecified
Color: 5 (Blue)
Text Height: Unspecified

Any street names, dimensions, and bearings associated with the centerline should be entered on this layer. Text is to be centered within the right-of-way.

16 *Pavement Edges (if available)*

Line Type: Continuous
Width: 0.0
Color: Unspecified

The pavement edges represent actual road edges such as curbs.

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>20 Other Features

Layers 20-39 are reserved for future uses. Any extra information from the digital drawing can be input on these layers as long as it is documented.

20 Survey Control Points

Insert: Point

Color: Unspecified

Any surveyed, centimeter-accurate GPS control points should be placed on this layer. NAD83 should be used for the horizontal datum and NAVD88 for the vertical datum.

20 Survey Control Points Text (Text String)

Font: Unspecified

Color: Unspecified

Text Height: Unspecified

Any descriptive text associated with survey control points should be placed on this layer.

21 Floodplains (or Drainage)

Line Type: Continuous

Width: 0.0

Color: Unspecified

If floodplain information is available it should be placed on this layer. This information will only be used for internal analysis, not as a substitute for official FEMA maps.

21 Floodplain Text (Text String)

Font: Unspecified

Color: Unspecified

Text Height: Unspecified

Any descriptive floodplain text should be placed on this layer.

>40 Proposed Utilities

This series of utility information may be very useful to the cities. Layers 40 and above are therefore being reserved for future definition.