



Built On What Matters

## CAD/GIS REQUIREMENTS DOCUMENT

The goal of this information is to provide a consistent set of directions and rules for all CAD data submitted to the Town of Frederick so that it can be easily imported into Frederick's GIS.

### CAD LAYERING/LEVEL STANDARD NAMING CONVENTION

The Layer/Level Naming standards listed below are a subset of the Town of Frederick CAD standard specific to the submittal of subdivision plats.

Geodatabase Layer	CAD Layer Names	Color	Weight	Linestyle
Type5_Subdivisions.Type5Arcs	SUB-Subdivision	119	4	6
Type6_LotsUnits.Type6Arcs	SUB-Lot_Line	201	1	0
Type6_LotsUnits.Type6Arcs_R	SUB-ROW	66	3	0
StreetCenterline	SUB-Centerline	3	3	4
Type9_Encumbrances_BlanketUtility. Type9Arcs_BU	SUB-Easement_BlanketUtility	192	1	1
Type9_Encumbrances_Conservation. Type9Arcs_C	SUB-Easement_Conservation	192	1	1
Type9_Encumbrances_Electric.Type9Arcs_E	SUB-Easement_Electric	192	1	1
Type9_Encumbrances_Flood.Type9Arcs_F	SUB-Easement_Flood	192	1	1
Type9_Encumbrances_IngressEgress. Type9Arcs_IE	SUB-Easement_IngressEgress	192	1	1
Type9_Encumbrances_SanitarySewer. Type9Arcs_SS	SUB-Easement_SanitarySewer	192	1	1
Type9_Encumbrances_StormWater.Type9Arcs_SW	SUB-Easement_StormWater	192	1	1
Type9_Encumbrances_Utility.Type9Arcs_U	SUB-Easement_Utility	192	1	1
Type9_Encumbrances_WasteWater.Type9Arcs_WW	SUB-Easement_WasteWater	192	1	1
Type9_Encumbrances_WaterMain.Type9Arcs_WM	SUB-Easement_WaterMain	192	1	1
PointOfBeginning	SUB-POB	78	2	0
<b>Annotation Layer Names</b>				
	SUB-Street_Txt_Name	64	0	0
	SUB-Subdivision_Txt_Name	0	0	0
	SUB-Subdivision_Txt_Dim	0	0	0
	SUB-BlockNumber_Txt	3	0	0

<b>Geodatabase Layer</b>	<b>CAD Layer Names</b>	<b>Color</b>	<b>Weight</b>	<b>Linestyle</b>
	SUB-Lot_Txt_Number	68	0	0
	SUB-Lot_Txt_Dim	0	0	0
	SUB-Streets_Txt_CurveData	0	0	0
	SUB-Subdivision_Txt_CurveData	0	0	0
	SUB-Lot_Txt_CurveData	0	0	0
	SUB-Easement_Txt	64	0	0
<b>For Construction Drawings</b>				
Water_Main	Water_Main	Blue		line
Water_Service	Water_Service	Blue		Line
Water_Valve	Water_Valve	Blue		Point
Fire_Line	Fire_Line	Blue		Line
Fire_Hydrant	Fire_Hydrant	Blue		Point
Storm_Sewer	Storm_Sewer	Black		Line
Storm_Manhole	Storm_Manhole	Black		Point
Inlet	Inlet	Black		Point and block
FES	FES	Black		Point and Block
Edge_of_Asphalt	Edge_of_Asphalt	Black		Line
Sidewalk	Sidewalk	Black		Line
Curb_and_gutter	Curb_and_gutter	Black		Line
Curb_Ramps	Curb_Ramps	Black		Line
Lane_Striping	Lane_Striping	Black		Line
Street_Sign	Street_Sign	Black		Point

**CAD FILE SUBMITTAL - SUPPLEMENTAL INFORMATION**

**FILE REQUIREMENTS**

Data should be in world space so information can be brought directly into GIS. There should be no x-refs, all information should be in one CAD file. Two sets should be submitted. One that looks like the Construction Drawings with formatting. One that is simple format with lines and points as noted.

## LINE WORK DETAILS

All line work shall be represented by single part line segments consisting of a starting point, and an ending point only. Multiple vertex polylines are not allowed.

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## POINT DETAILS

Included within the associated dataset will include a point representing the True Point of Beginning for the associated boundary. Said point shall include a minimum of X and Y values located in [ESRI:102253](#); coordinates as Feet, or as Latitude\Longitude. Z values can be added as an option. See "Coordinate System Details" below for more specific requirements.

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## ANNOTATION DETAILS

Each segment included in the submittal shall be dimensioned to the 1/100th of a foot (X.XX'), and shall be denoted as either a Platted Distance or a Measured Distance. This shall be defined as placing a (M) for 'measured', or a (P) 'platted' behind the corresponding distance.

For example - 131.49'(P) 131.58'(M) or 131.50 (M&P)

Note: All Curve Data shall consist of information regarding any curve on a property, boundary, or centerline. Curve data shall include all of the following;

1. Radius
2. Angle
3. Tangent
4. Length
5. Chord Distance
6. Chord Bearing

All points must be stored as a "POINT" feature, or a "Block Reference" or a "Cell" with the insert point of the feature being the centroid.

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## COORDINATE SYSTEM DETAILS

Projected Coordinate System: NAD\_1983\_HARN\_StatePlane\_Colorado\_North\_FIPS\_0501\_Feet

- Projection: Lambert\_Conformal\_Conic
- False\_Easting: 3000000.00031608
- False\_Northing: 999999.99999600
- Central\_Meridian: -105.50000000
- Standard\_Parallel\_1: 39.71666667
- Standard\_Parallel\_2: 40.78333333
- Latitude\_Of\_Origin: 39.33333333
- Linear Unit: Foot\_US

Geographic Coordinate System: GCS\_North\_American\_1983\_HARN

- Datum: D\_North\_American\_1983\_HARN
- Prime Meridian: Greenwich
- Angular Unit: Degree