

## **Anne Arundel County Digital Submittal Plat Standards (Attachment A)**

### **Purpose**

The Anne Arundel County Department of Planning and Zoning has created the following CAD standard for digital submittals of subdivision plats, and Administrative Zoning Change submittals. Using this standard allows the county to import the data directly into the county's geographic information system. As a result, there will be a savings of time and tax payer money.

A geographic information system (GIS) is a collection of data comprised of spatial and non-spatial data that are managed by a relational database. Utilizing a CAD standard will ensure a smooth conversion from CAD to GIS.

We request that this standard be used for all submittals; however this is not a static solution. Changes to the standard will be made as needed to support the submittal process and to accommodate updates or revisions to the software.

***All digital CAD files or paper plats in lieu of digital CAD files must be submitted along with payment to the Anne Arundel County Inspections and Permits department. Fees for digital conversion of paper record plats are shown under Fees and security on page 15 of this document.***

### **General CAD Standards**

- Digital files must be submitted in AutoCAD Version 14 or greater with .DWG file format.
- Digital files must be submitted on industry standard quality CD-R/DVD compact disks.
- Each CD must be labeled with project name, subdivision and project number, name of the engineering or consulting firm and date.
- Submitted data must be free of Malware.
- Coordinate reference system to be used is Maryland State Plane based on NAD83 (North American Datum, 1983), units in U.S. Survey Feet.
- Each plat drawing shall contain three State Plane Coordinate Plane control points as tick references and shall be annotated with the actual x, y coordinate in U.S. Survey Feet (to the nearest foot). Control points are vital to the geo-referencing process. These will be verified, and if inaccurate, will need to be corrected and the drawing resubmitted.
- The AutoCAD file must be identical in content to the signed paper plat (i.e. the AutoCAD file might have additional layers that were turned off and not plotted on the paper) with the exception of signatures and seals. (The county should be able to plot the plat drawing(s) from the digital file, minus any signatures)
  - If you currently have a CAD standard in place, please feel free to use your CAD standard to plot the paper or mylar submittals. For Anne Arundel County GIS purposes, also provide the specific CAD layers outlined in this

document. The CAD layers the County requests may be turned off for plotting purposes but are needed for final submittal approval.

- The AutoCAD file must use the standard layer scheme for .dwg/.dxf described herein and should follow any additional accepted engineering design practices.
- The method (Layers, Lineweights etc.) of inclusion of additional information required on the plat submittal drawing, not specifically addressed by this CAD standard, is left to the discretion of those submitting the AutoCAD file.
- However, any additional information added to a submitted drawing must be placed on separate layers other than the ones specified within this CAD standard on page 13. This is important in order to eliminate possible inclusion of data which will cause errors in GIS conversion.
- **Simply stated, if you need to include information other than what is listed on the CAD standard, make a new layer.**
- Digital line work must be topologically clean without slivers, dangles, undershoots or inappropriate breaks to the extent possible. Boundary lines should connect properly to enclose the area, but they do not need to be closed polygons (although a closed polygon drawn as polylines is preferable) It is recommended that where appropriate, functionality such as the AutoCAD snapping toolset be utilized. Polyline features that do not import into ArcGIS feature class polygons because of significant breaks in line work may need to be corrected and resubmitted.
- For each plat sheet include at least 2 well defined corner points of the site boundary marked and labeled with coordinates Coordinate reference system to be used is Maryland State Plane based on NAD83 (North American Datum, 1983), units in U.S. Survey Feet. Line work should be placed on B-CoorTic and values on B-CoorTic Text.

### **Submittal Procedure**

- Digital submittals are to be made on a CD that includes the CAD file (with one full drawing covering all plats) to be reviewed and pdf files of each plat sheet to be printed on mylar. The pdf files should be a representation of what will be printed on the final mylar. After plats are reviewed, corrections will be requested if needed. If corrections are needed, new CAD files and pdf files of the corrected plats must be submitted to GIS. Corrected plats will be reviewed. If plats are acceptable, the approval letter will be emailed to the planner. GIS will approve plats in the MST database. At this time the planner will request that the mylars be printed.
- Submittals must comply with the Anne Arundel County Code, 2010 Article 17, Title 3 and Subtitle 3 which can be found at the following web address:  
[http://www.amlegal.com/nxt/gateway.dll/Maryland/annearundelco\\_md/article17subdivisionanddevelopment/title3subdivision?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:annearundelco\\_md\\$anc=JD\\_17-3-301](http://www.amlegal.com/nxt/gateway.dll/Maryland/annearundelco_md/article17subdivisionanddevelopment/title3subdivision?f=templates$fn=default.htm$3.0$vid=amlegal:annearundelco_md$anc=JD_17-3-301)
- Plotted examples follow below and AutoCAD sample files are available on the Anne Arundel County Government website.

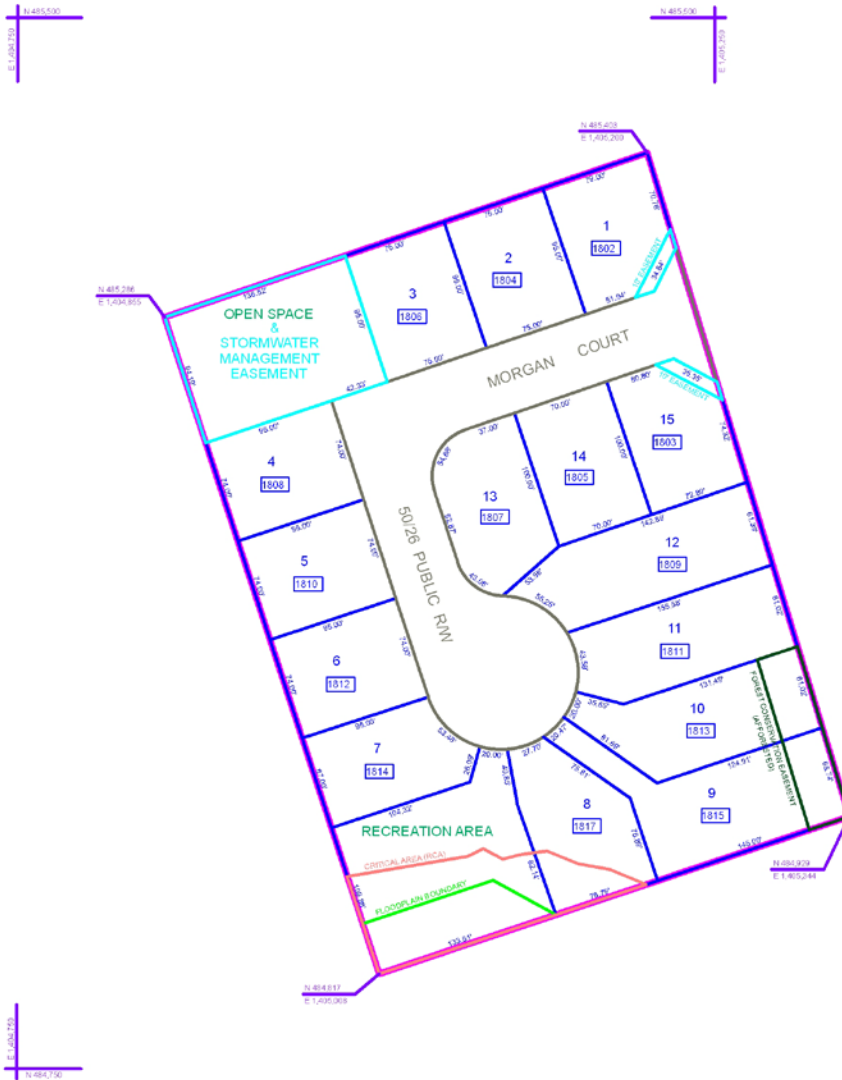
- Paper submittals (fee in lieu of) will be submitted on paper and should be a representation of what will be printed on the final mylar. After plats are reviewed, corrections will be requested if needed. If corrections are needed, new paper prints of the corrected plats must be submitted to GIS. Corrected plats will be reviewed. If plats are acceptable, the approval letter will be emailed to the planner. GIS will approve plats in the MST database. At this time the planner will request that the mylars be printed.

*Notes:*

1. *Shading or hatching for polygons such as Forest Conservation Easements, Roads, etc. should be drawn on a separate Layer using the same Color as the features they represent. A Line Weight of zero (0) should be used for shading or hatching.*
2. *Text heights are not specified due to the need for different text sizes for different scales.*
3. *If addresses are requested to be placed on the plat for lots, they may be shown on the plat drawing(s). See the Polyline Layers and Text Layers tables on page 13 for the proper layers, colors etc. to use. Address examples can be found on the Plat Example and the Administrative Zoning Change Plat Example. The addresses are blue numbers enclosed in blue rectangles*
4. *Third Party Fonts should not be used for submitted drawings.*
5. *Bearings can be included on the B-Lot Dimensions layer.*

## Plat Example

This plat represents a completed subdivision plat that is ready for submittal. Plat submittals may include some or all of the features shown. In addition to other required elements identified in the county code, a detailed description of each feature is given in the **Layer Specifications**.



## Layer Specifications

### Parcel Boundary

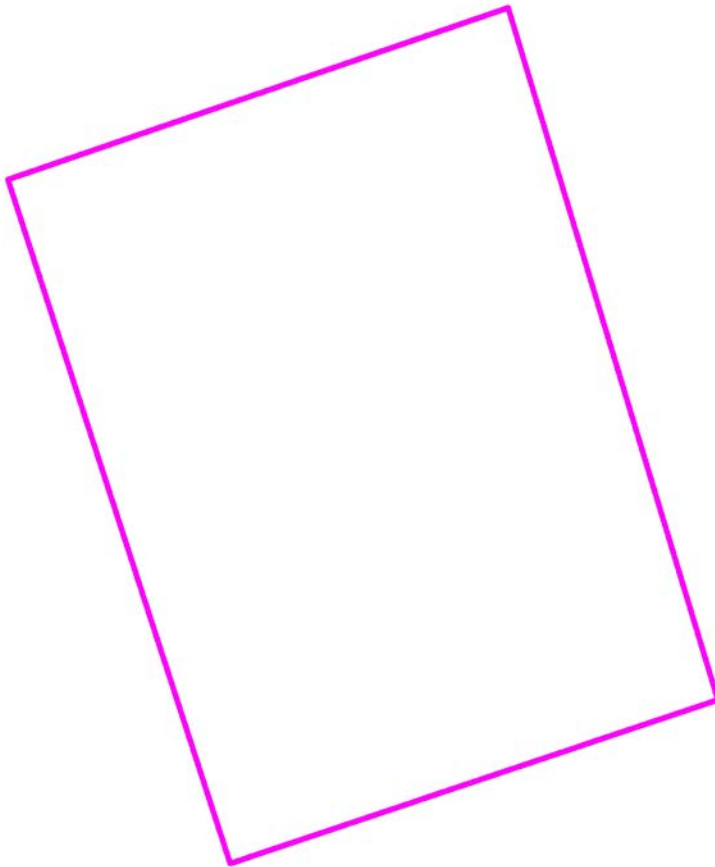
The Parcel Boundary encompasses the total area of the subdivision plat. All of the lines should close to form a polygon (although preferable, it does not have to be a “closed polygon” in CAD term).

**B – Boundary** (Parcel Boundary):

Color - Magenta (6)

Line Type – Continuous

Line Weight –



1

## Lot Lines and Text

The Lot Lines show the boundaries of each lot in the subdivision parcel. All of the lines should close to form a polygon (although preferable, it does not have to be a “closed polygon” in CAD terms). The lot dimensions represent the length of each lot line. The lot numbers represent each lot number in the subdivision.

### **B – Lots (Lot Lines):**

Color – Blue (5)

Line Type – Continuous

Line Weight – 0.5

### **B – Lot Numbers (Lot Numbers):**

Color – Blue (5)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified

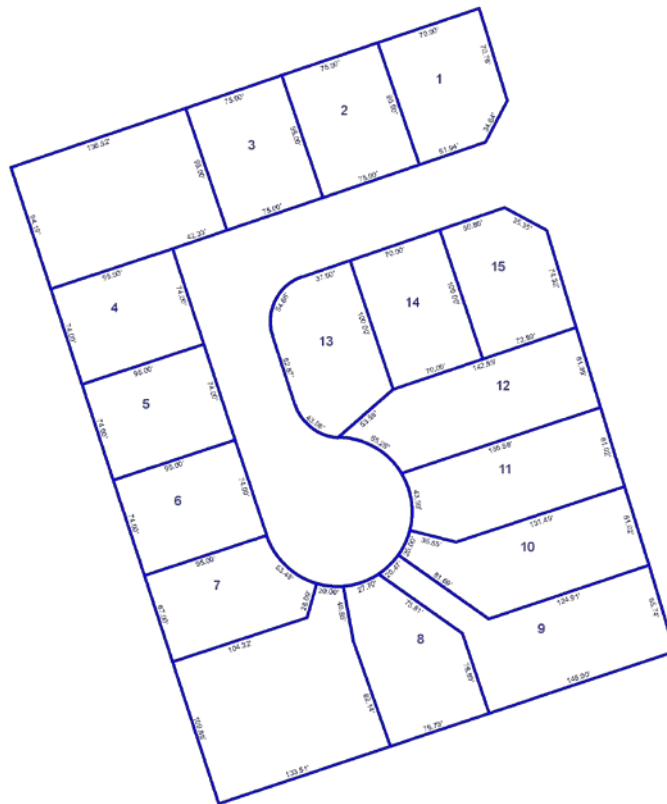
### **B – Lot Dimensions (Lot Numbers):**

Color – Blue (5)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified



## **Right of Way Lines and Text**

The Right of Way Lines show the outline of public and private roads within a subdivision. All of the lines should close to form a polygon (although preferable, it does not have to be a “closed polygon” in CAD terms). The Road Name Text represents the road names within a subdivision.

### **B – ROW (Existing and New Roads):**

Color – Gray (8)

Line Type – Continuous

Line Weight – 0.5

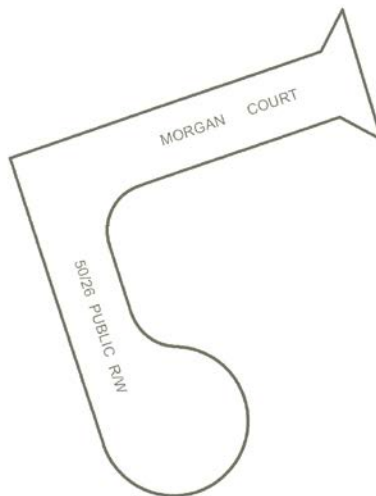
### **B – Road Name (Road Names):**

Color – Gray (8)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified



## **Easement Lines and Text (Non-Forest Conservation Easement (FCE))**

Easement Lines show the boundaries of any other easements within the subdivision parcel that are not Forest Conservation Easements. All of the lines should close to form a polygon (although preferable, it does not have to be a “closed polygon” in CAD terms). The Easement Text describes the type and or size of the easement that is represented by the easement polygon.

### **B – Esmt (Easement Lines):**

Color – Cyan (4)

Line Type (ACAD\_ISO05W100)

Line Weight – 0.5

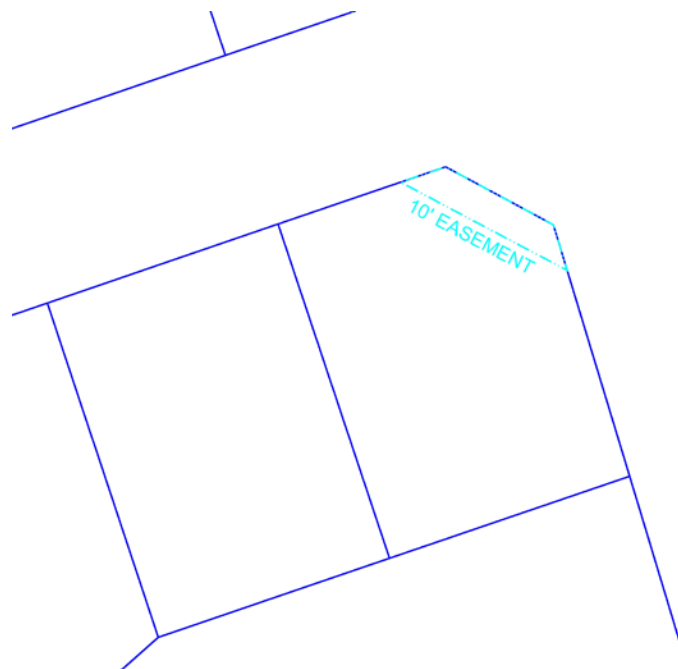
### **B – ESMT Text (Easement Text):**

Color – Cyan (4)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified



## **Forest Conservation Easements and Text**



Forest Conservation Easements represent areas of forests that are maintained as Forested, Afforested or Reforested land. All of the lines should close to form a polygon (although preferable it does not have to be a “closed polygon” in CAD terms). The text calls out the Forest Conservation Easements. *If known, the text should also include the type of Easement (Forested, Afforested or Reforested).*

**B – ForCon** (Forest Conservation Easements):

Color – Green (116)

Line Type – Continuous

Line Weight – 0.5

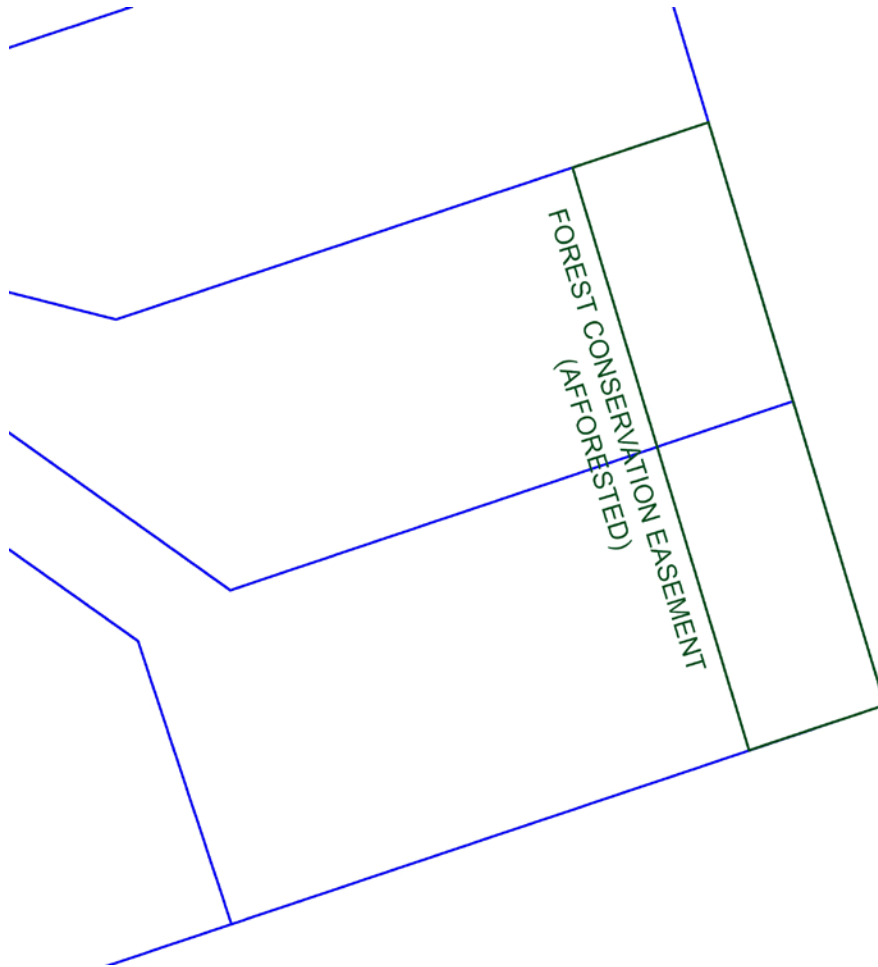
**B – ForCon Text** (Forest Conservation Easement Text):

Color – Green (116)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified



## Critical Area and Text

The Critical Area Boundary defines areas within the county that are within 1000 feet of the shoreline. These areas have special requirements for building and zoning. All of the lines should close to form a polygon (although preferable, it does not have to be a “closed polygon” in CAD terms). The text calls out the Critical Areas. *If known, the text should also include the type of Critical Area (LDA, IDA or RCA).*

### **B – Critical Area** (Critical Area Boundary):

Color – Orange (11)

Line Type – Continuous

Line Weight – 0.5

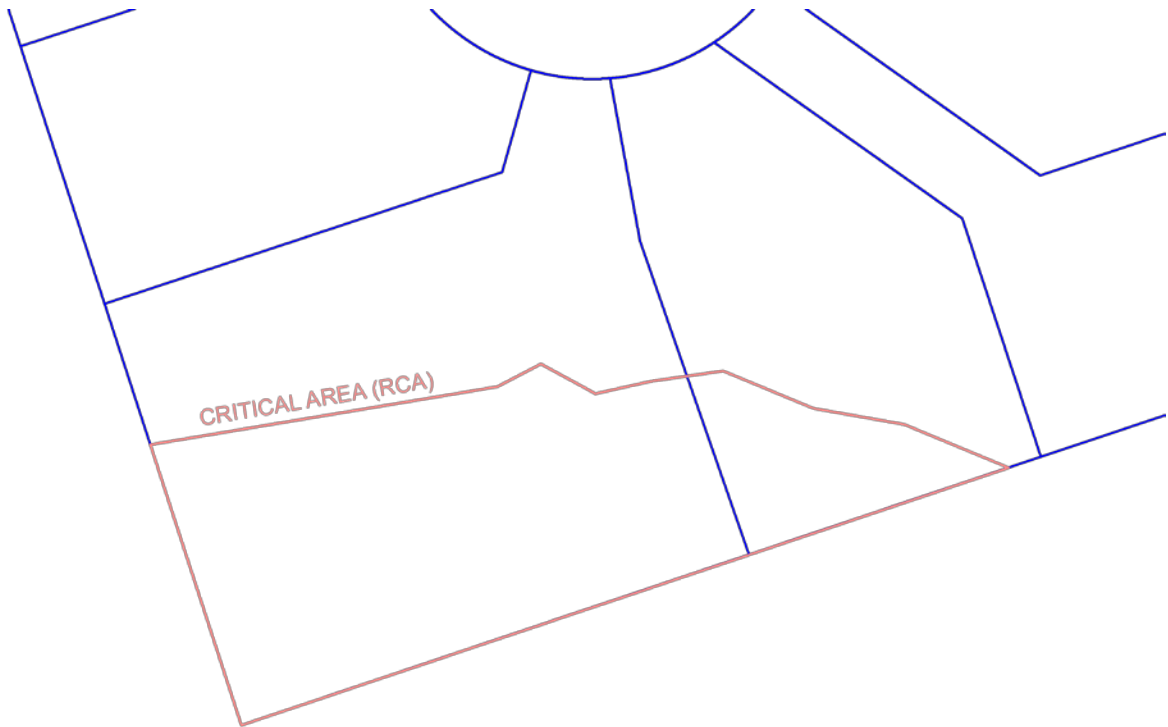
### **B – Critical Area Text** (Critical Area Text):

Color – Orange (11)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified



## **Floodplain Boundary and Text**

Floodplain Boundaries define areas of land within the county that are prone to flooding. All of the lines should close to form a polygon (although preferable, it does not have to be a “closed polygon” in CAD terms). The text calls out floodplain areas.

### **B – Flood** (Floodplain Boundary):

Color – Green (3)

Line Type – Continuous

Line Weight – 0.5

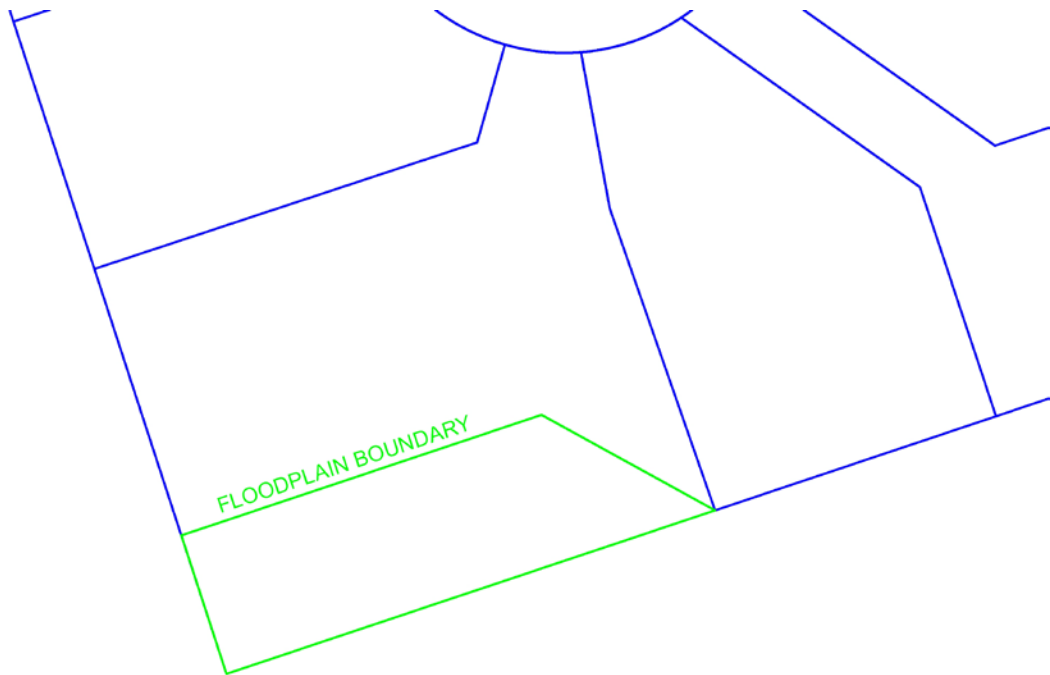
### **B – Flood Text** (Floodplain Text):

Color – Green (3)

Font – Not Specified

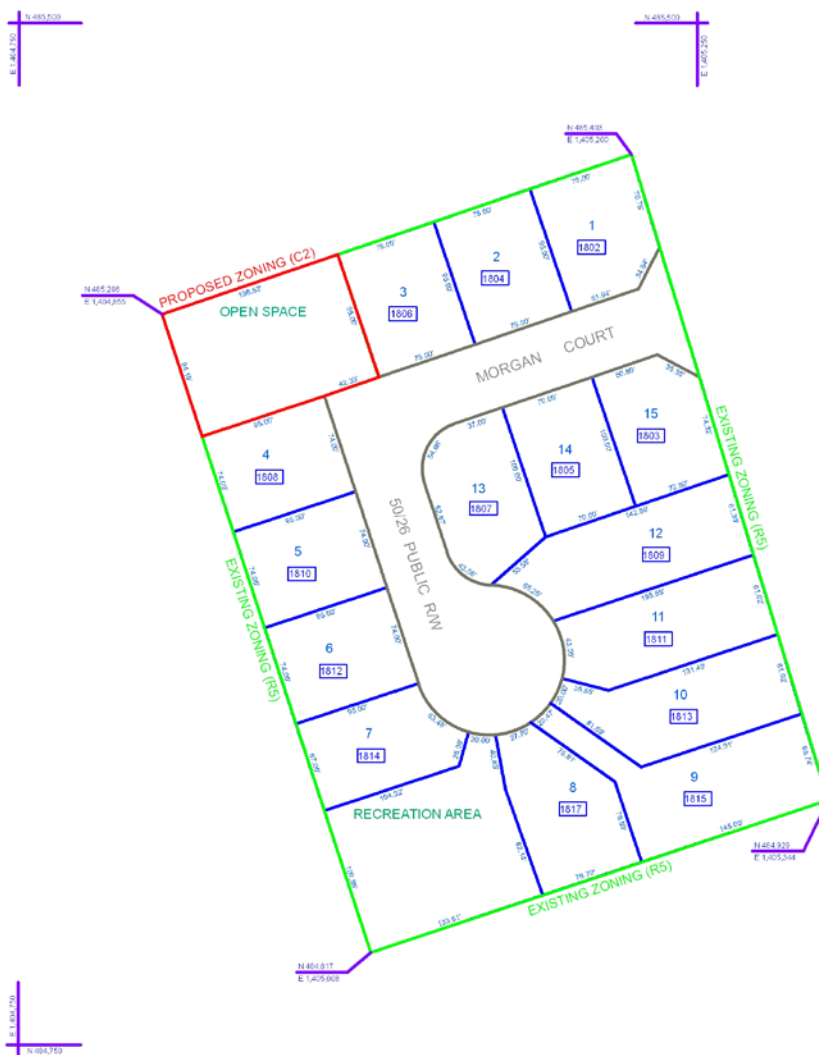
Text Height – Not Specified

Font Style – Not Specified



## Administrative Zoning Change Plat Example

This example plat represents a plat that is ready to be submitted for an administrative zoning change. This type of drawing should show the existing zoning and the area(s) of proposed zoning change(s). In the drawing below, the existing zoning is outlined in green and labeled "EXISTING ZONING". The proposed zoning is outlined in red and is labeled "PROPOSED ZONING". These features should be shown with respect to the lots and roads in the subdivision parcel and labeled with the current and future zoning category.



## Administrative Zoning Change Layer Specifications

### Existing Zoning

**B – Existzone** (Existing Zoning Boundary):

Color – Green (3)

Line Type – Continuous

Line Weight – 0.5

**B – Existzone Text** (Existing Zoning Text):

Color – Green (3)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified

### Proposed Zoning

**B – Propzone** (Proposed Zoning Boundary):

Color – Red (1)

Line Type – Continuous

Line Weight – 0.5

**B – Propzone Text** (Proposed Zoning Text):

Color – Red (1)

Font – Not Specified

Text Height – Not Specified

Font Style – Not Specified

### Polyline Layers

Polylines					
Layer Name	Color	AutoCAD Color Index #	Line Type	Line Weight	Description
B-Address Border	Blue	5	Continuous	0	Address Border
B-Boundary	Magenta	6	Continuous	1	Parcel Boundary
B-Lots	Blue	5	Continuous	0.5	Lot Lines
B-Flood	Green	3	Continuous	0.5	Floodplain Boundary
B-ROW	Gray	8	Continuous	0.5	Existing and New Roads
B-Esmt	Cyan	4	ACAD_ISO05W100	0.5	Easements (not FCE)
B-Existzone	Green	3	Continuous	0.5	Existing Zoning Boundary
B-Propzone	Red	1	Continuous	0.5	Proposed Zoning Boundary
B-ForCon	Green	116	Continuous	0.5	Forest Conservation Easement
B-Critical Area	Orange	11	Continuous	0.5	Critical Area Boundary
B-CoorTic	Purple	190	Continuous	0.5	Coordinate Tic

### Text Layers

Annotation						
Layer Name	Color	AutoCAD Color Index #	Font	Text Height	Font Style	Description
B-Lot Numbers	Blue	5	Not Specified	Not Specified	Not Specified	Lot Numbers
B-Lot Dimensions	Blue	5	Not Specified	Not Specified	Not Specified	Lot Dimensions
B-Address Numbers	Blue	5	Not Specified	Not Specified	Not Specified	Address Numbers
B-Road Name	Gray	8	Not Specified	Not Specified	Not Specified	Road Names
B-Recreation Area Text	Green	122	Not Specified	Not Specified	Not Specified	Recreation Area Text
B-Open Space Text	Green	122	Not Specified	Not Specified	Not Specified	Open Space Text
B-SWM ESMT Text	Cyan	4	Not Specified	Not Specified	Not Specified	Storm Water Management ESMT Text
B-ESMT Text	Cyan	4	Not Specified	Not Specified	Not Specified	Easement Text
B-CoorTic Text	Purple	190	Not Specified	Not Specified	Not Specified	Coordinate Text
B-Flood Text	Green	3	Not Specified	Not Specified	Not Specified	Floodplain Text
B-ForCon Text	Green	116	Not Specified	Not Specified	Not Specified	Forest Conservation ESMT Text
B-Critical Area Text	Orange	11	Not Specified	Not Specified	Not Specified	Critical Area Text
B-Existzone Text	Green	3	Not Specified	Not Specified	Not Specified	Existing Zoning Text
B-Propzone Text	Red	1	Not Specified	Not Specified	Not Specified	Proposed Zoning Text

**§ 17-11-101. Fees and security.**

The following fees shall be paid and security given as provided in the following chart, except that fees paid on an application governed by the law as it existed prior to May 12, 2005 shall be credited against the fees in the following chart if the application is withdrawn and a new application is filed under this article:

<b>Category</b>	<b>Fee or Security</b>
Amended record plat	\$350
Clearing in violation of forest conservation law	\$0.80 per square foot
Clearing in violation of critical area law	\$1.50 per square foot of mitigation required
Digital conversion of record plat	\$250, first page \$75, additional pages
Fees and charges relating to allocation	See Article 13 of this Code
Fee for abandonment of forest conservation easement	\$0.75 per square foot of conservation easement abandoned
Fee-in-lieu of planting for land outside the critical area	\$0.50 per square foot
Fee-in-lieu of planting for land inside the critical area	\$1.50 per square foot of mitigation required
Fee-in-lieu for new impervious surface or lot coverage inside a buffer modification area	\$1.50 per square foot of mitigation required
Fee-in-lieu for planting in the critical area buffer	\$1.50 per square foot of mitigation required
Fee-in-lieu for new impervious surface inside the critical area on a legal lot in existence before December 1, 1985	\$1.50 per square foot of mitigation required
Fee-in-lieu of recreation area	\$1,000 per unit
Final plan approval, application for	\$120 per residential unit  \$420 per acre or part of an acre, commercial or industrial

Incentive Program	\$500
Inspection fees	Public works agreement: 7% of the cost of the improvements  Forestation agreement: 7% of the cost of the installed plant materials
Modification, application for	\$250
Preliminary plan review, application for	\$75 per residential unit \$360 per acre or part of an acre, commercial or industrial
Security for completion of public improvements or forestation	Public works agreement: amount equal to approved cost estimate Forestation agreement: amount equal to approved cost estimate outside the critical area or \$1.50 per square foot inside the critical area
Security for payment of labor and materials	Public works agreement: amount equal to 50% of the approved cost estimate
Security for maintenance during warranty period	Public works agreement: amount equal to 10% of the approved cost estimate
Signs	\$35 per sign
Site development plan approval, application for	\$120 per residential unit \$420 per acre or part of an acre, commercial or industrial
Site development plan for development that does not require a permit	\$350 per acre or part of an acre
Sketch plan approval, application for	\$75 per residential unit  \$360 per acre or part of an acre, commercial or industrial

(Bill No. 3-05; Bill No. 77-05; Bill No. 43-08; Bill No. 59-10; Bill No. 93-12; Bill No. 2-13)

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