

# **Geographic Information Systems Presentation to Town Council**

The Town of Vienna has used Geographic Information System Mapping (GIS) since 2010. GIS is a mapping application that offers advanced features and flexibility to collect data, offer analytics, and provide a visual map, dashboard, app, and reports. GIS is used in various industries, such as Agriculture and Forestry, Environment and Natural Resources, Mining and Oil and Gas, and Media and humanitarian efforts. In Government use, GIS is used to respond to critical events, track resources, visualize land-use trends, and monitor assets within and around your region with high-resolution imagery. Gain insight into urban planning and infrastructure development, predict traffic volume, and mitigate risks. Other ways that GIS is used by Governments are to assist in event planning, crime analysis, and interagency operations and to provide real-time data on tracked items.

The Town's first use of GIS was to document and create an Official Town Map and a Zoning Map of the Town. As technology improved, other departments began to use GIS and found more useful ways by creating applications used for asset management and documenting any pertinent information to be reviewed later.

The Town's GIS is primarily used by the Planning and Zoning and Public Works departments. The Finance, Parks and Recreation, and Police departments have also used GIS or other mapping applications for internal use to add documentation or reporting. Requests for creating or updating maps can be brought to the appropriate department for review and implementation.

The Town's Water and Sewer division of Public Works, for example, is the biggest user of GIS and has used its functionality to create a mobile Field Map application for technicians to collect and review water main replacement projects, hydrant flushing and painting, valve exercising, manhole inspections, sanitary cleaning, and any proposed and ongoing Closed Circuit Television (CCTV) inspections of sanitary mains, historical tracking of water main breaks. The Sewer division utilizes GIS for sanitary network tracking and uses its maps to document any rehabilitation analysis and sewer re-lining work. The Stormwater division is constantly updating data for the storm drain network in GIS. This Stormwater map displays floodplain and Chesapeake Bay Preservation Act boundaries.

Currently, GIS does not perform live tracking of Town vehicles such as snow removal and leaf collection vehicles but is used to collect information and display the progress of an area as work is completed.

The following table lists maps posted online to the Town's website utilizing GIS.

## **Online Maps**

### **Interactive Maps**

- Official Town Map
- Zoning Map
- Development (Construction) Projects
- Environmental Features
- Leaf Collection Routes
- Pedestrian Network
- Primary Snow Routes
- Public Parking
- Public Transportation

### **PDF Non-Interactive Maps**

- Bike Map
- Community Map
- Sewer Service Boundary
- Street Sweeping
- Trash Collection
- Water Service Boundary

The following lists GIS maps that were created and used internally by staff.

## **Internal Use Maps**

### **Finance**

- Town Service Water Map
- Town Water Service Map of customers outside of the Town

### **Planning and Zoning**

- Vienna Boundary Map
- Code Enforcement Tracking
- Analysis used for Comprehensive Plan
- Proffer Map – Zoning
- Conditional Use Permits
- Church Street Vision Buildings
- Zoning Complaints
- Code Create Draft of Proposed Districts
- Construction Projects
- Maple Avenue Commercial Zone
- Vienna Parcel Map
- Pole Locations

### **Police – (Have used in the past)**

- Crash Data (Previous Years)

### **Parks and Recreation**

- Vendor Locations for Events

### **Public Works**

- Fire Hydrant Preventative Maintenance
- Fire Hydrant Flush
- Stormwater Management Facilities
- Streetlights
- Sanitary Sewers
- Traffic Signs Inventory
- Traffic Counts
- Vienna Roadways
- Closed Circuit TV and Cleaning
- Flood Plain and Elevations
- Storm Drainage
- Closed Circuit TV and Cleaning
- Flood Plain and Elevations
- Storm Drain Inlet Inspection
- Valve Exercise

# Examples of the Town's Online Interactive Maps

[Town of Vienna \(arcgis.com\)](http://Town of Vienna (arcgis.com))

The screenshot shows the top navigation bar of the Town of Vienna website. The navigation items are: Residents, Engagement Central, Doing Business, Your Government, Things to Do (highlighted with a red underline), and a search icon. Below the navigation bar is a dark grey menu with several categories: Welcome, Awards and Recognitions, By the Numbers (Stats), Helpful Info for Newcomers, History, Things to Do, and Town Calendar. The 'Maps' category is highlighted in green, with a red arrow pointing to it from the 'Town Calendar' category. A sub-menu item 'Vienna Map Gallery' is visible under 'Maps'. The background of the menu shows a photo of a photo show.

The banner features the Town of Vienna logo, a white outline of a building on a red background, and the text 'TOWN OF VIENNA since 1890'. Below the banner is a grid of eight interactive map tiles, each with a thumbnail image and a caption: Zoning Map, Town of Vienna Development A..., Public Transportation, Public Parking, Primary Snow Routes, Pedestrian Network, Environmental Features, and 2022 Leaf Collection Routes. A blue 'Edit home page' button is located at the bottom right of the grid.

# Code Create Story Map

## [CODE CREATE VIENNA - Maps](#)



CODE CREATE VIENNA

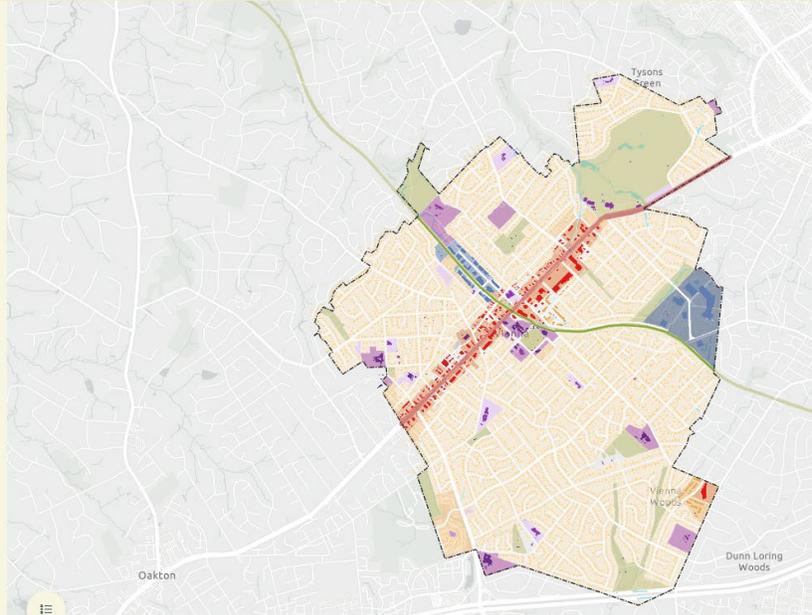


Existing Conditions

Proposed Zoning Districts

### Existing Land Use

Mixed-use, residential and other public buildings make up the remainder of uses in Vienna.



# Town of Vienna Development Projects

[Town of Vienna Development Activity Map \(arcgis.com\)](http://arcgis.com)

