



Howard County
Department of Recreation & Parks
in Partnership with the
Office of Emergency Management

Outdoor Lightning Alerting System Proposal



Why Take On This Initiative?

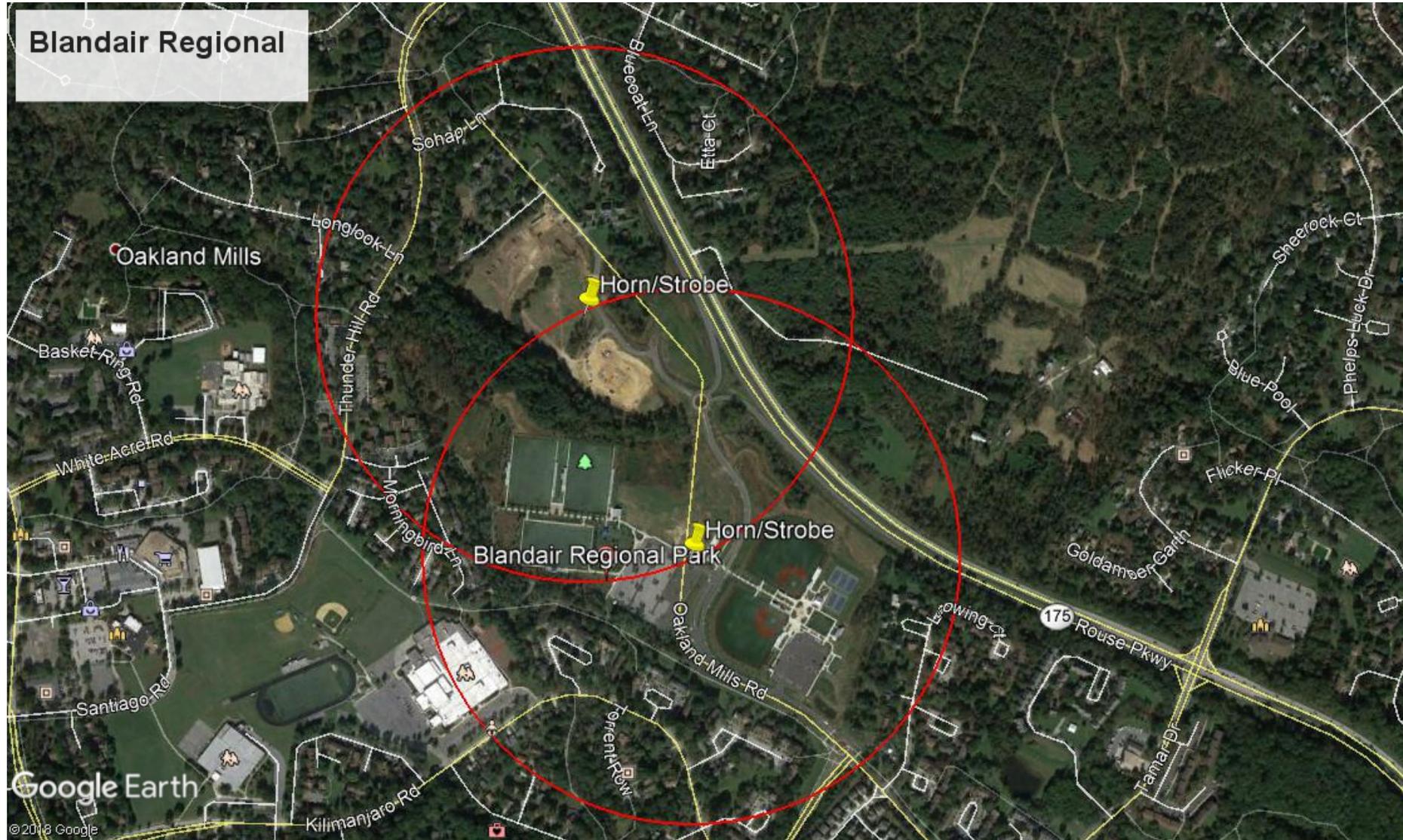
- The United States experiences on average 20 million cloud-to-ground lightning flashes per year
- From 1959-2017 there were 126 fatalities in Maryland related to lightning strikes
- Lightning can strike as far as 10 miles away from the storm
- To provide an advance warning system so the thousands of people using county parks can seek shelter

What Parks Will Be Affected?

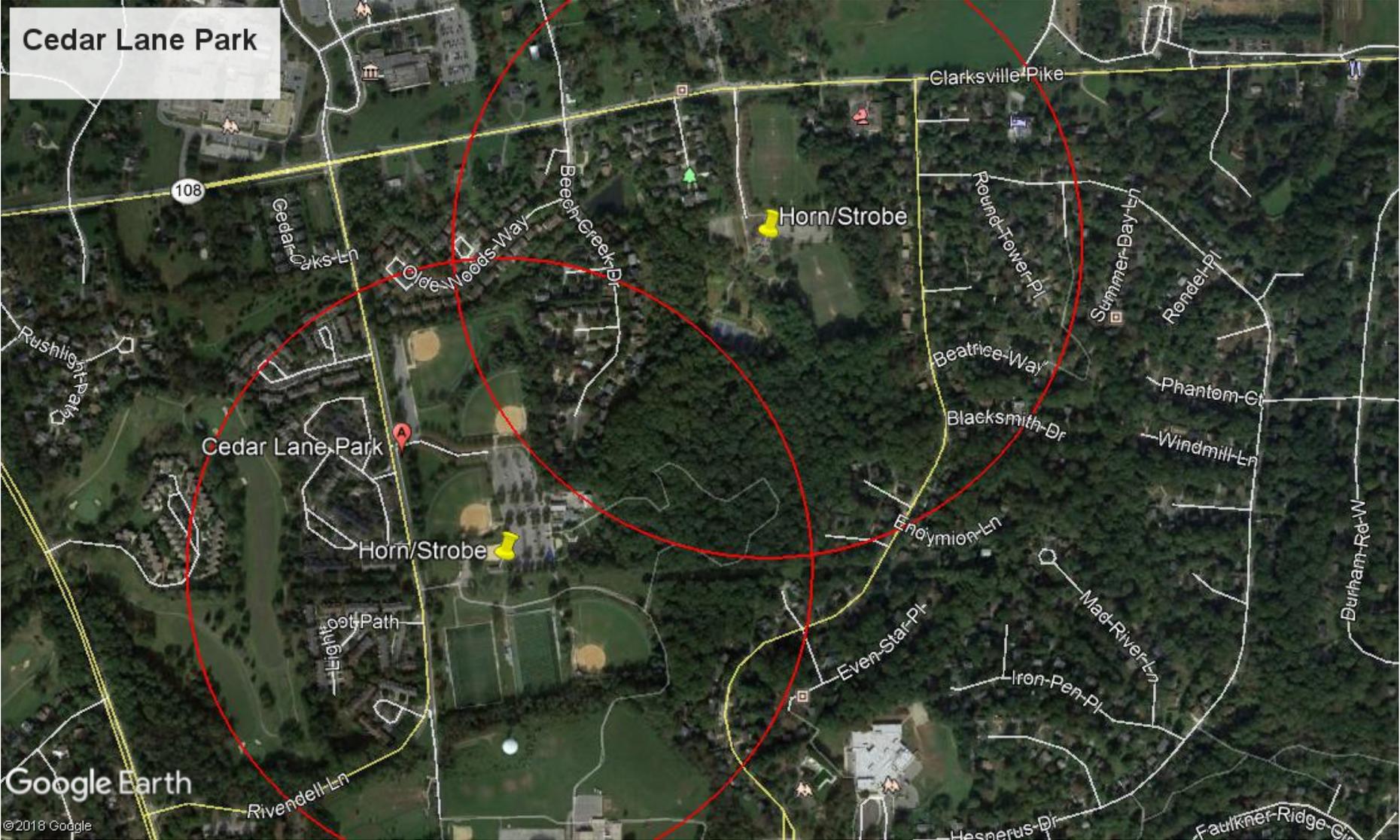
REGIONAL PARKS

- Blandair Park
- Cedar Lane Park
- Centennial Park
- Rockburn Branch Park
- Troy Park
- Savage Park
- Schooley Mill Park
- Western Regional Park

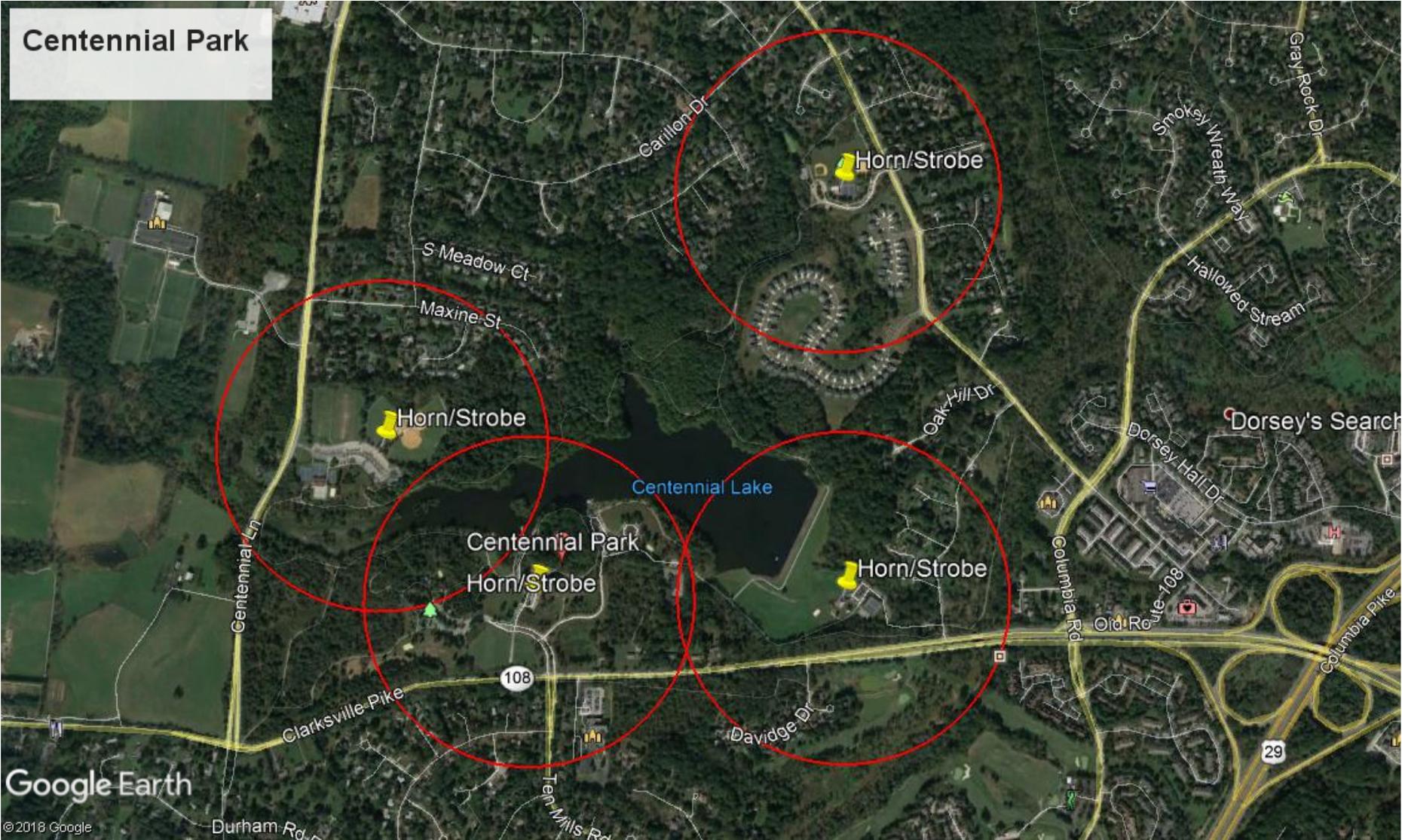
Blandair Regional Park



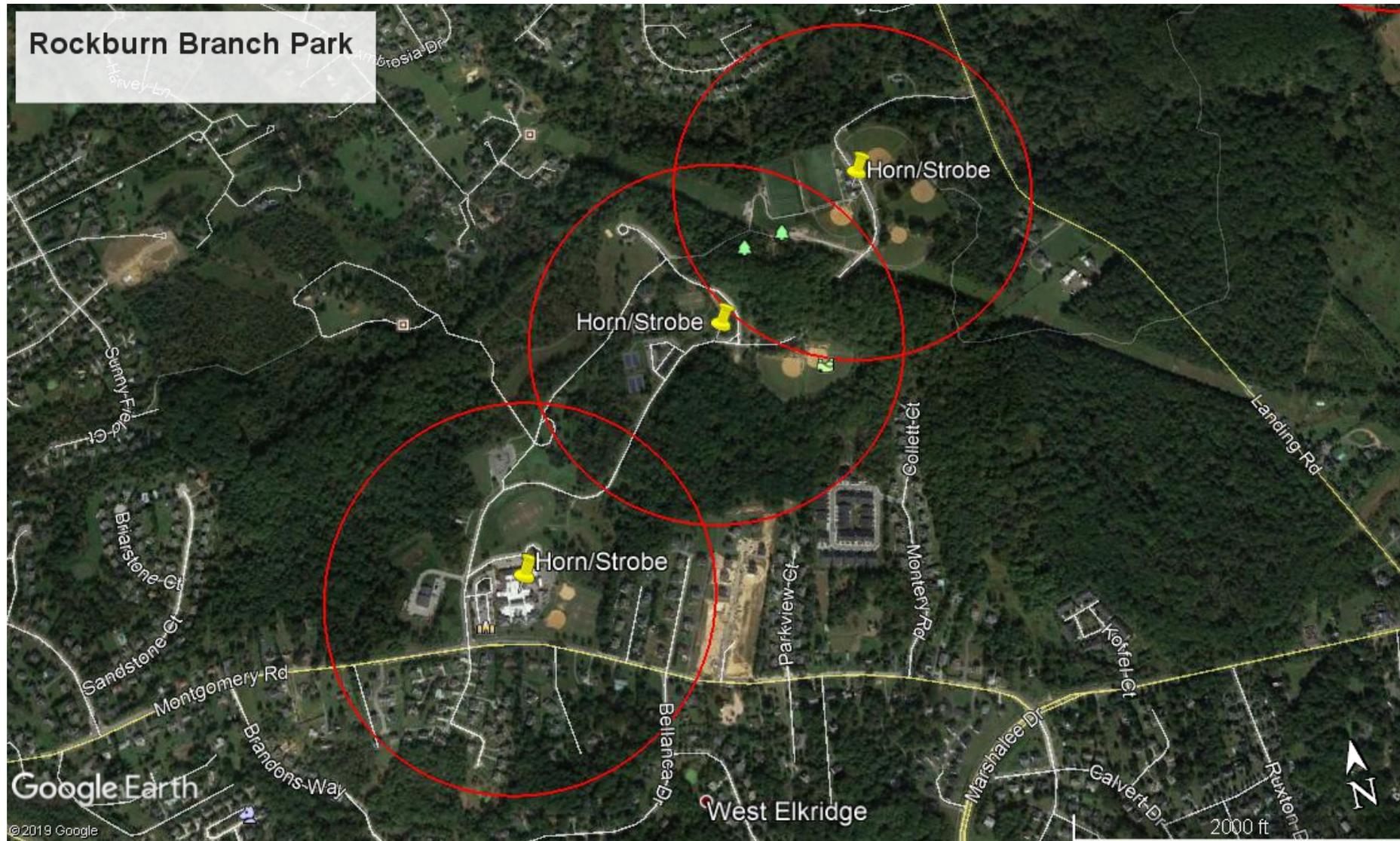
Cedar Lane Park



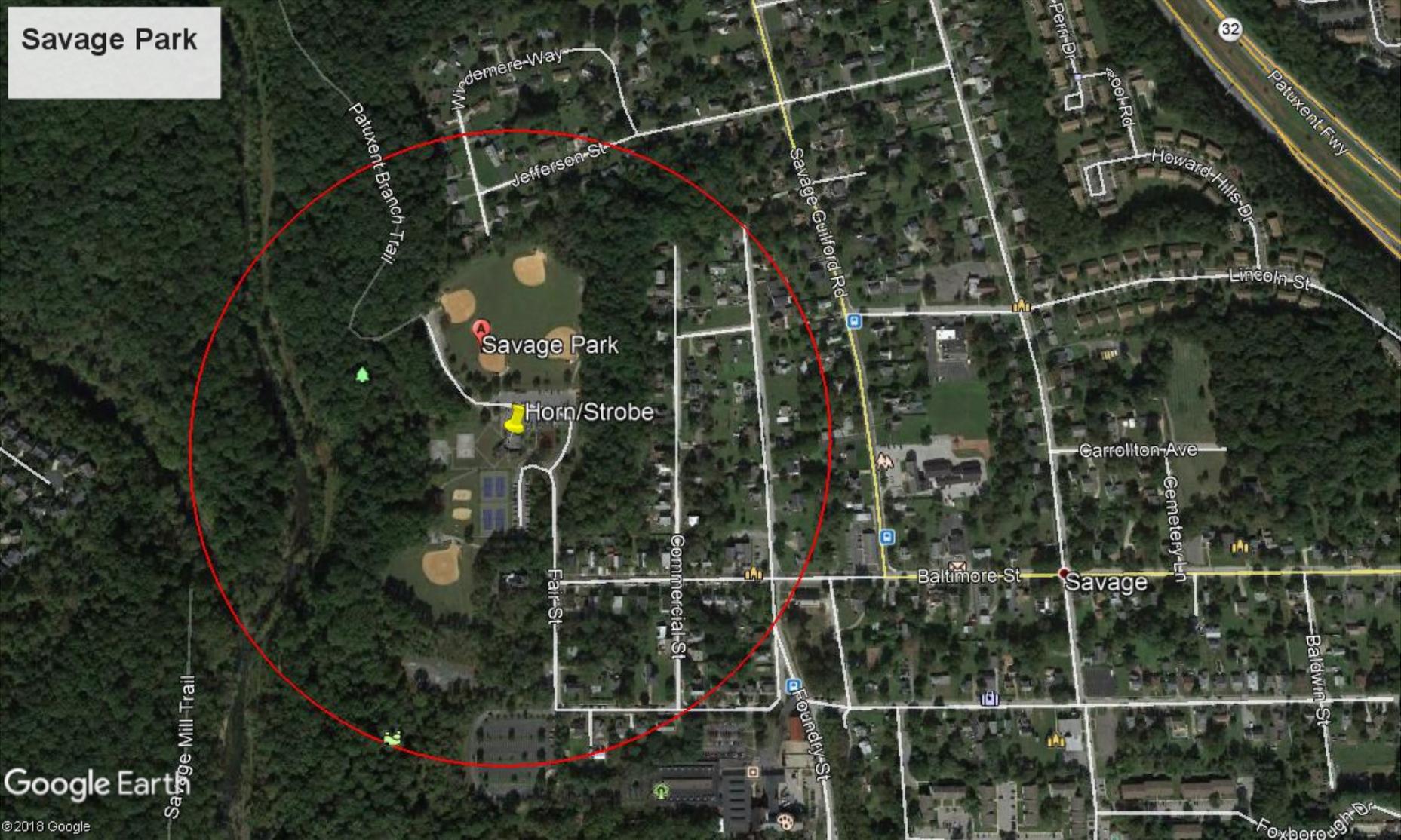
Centennial Park



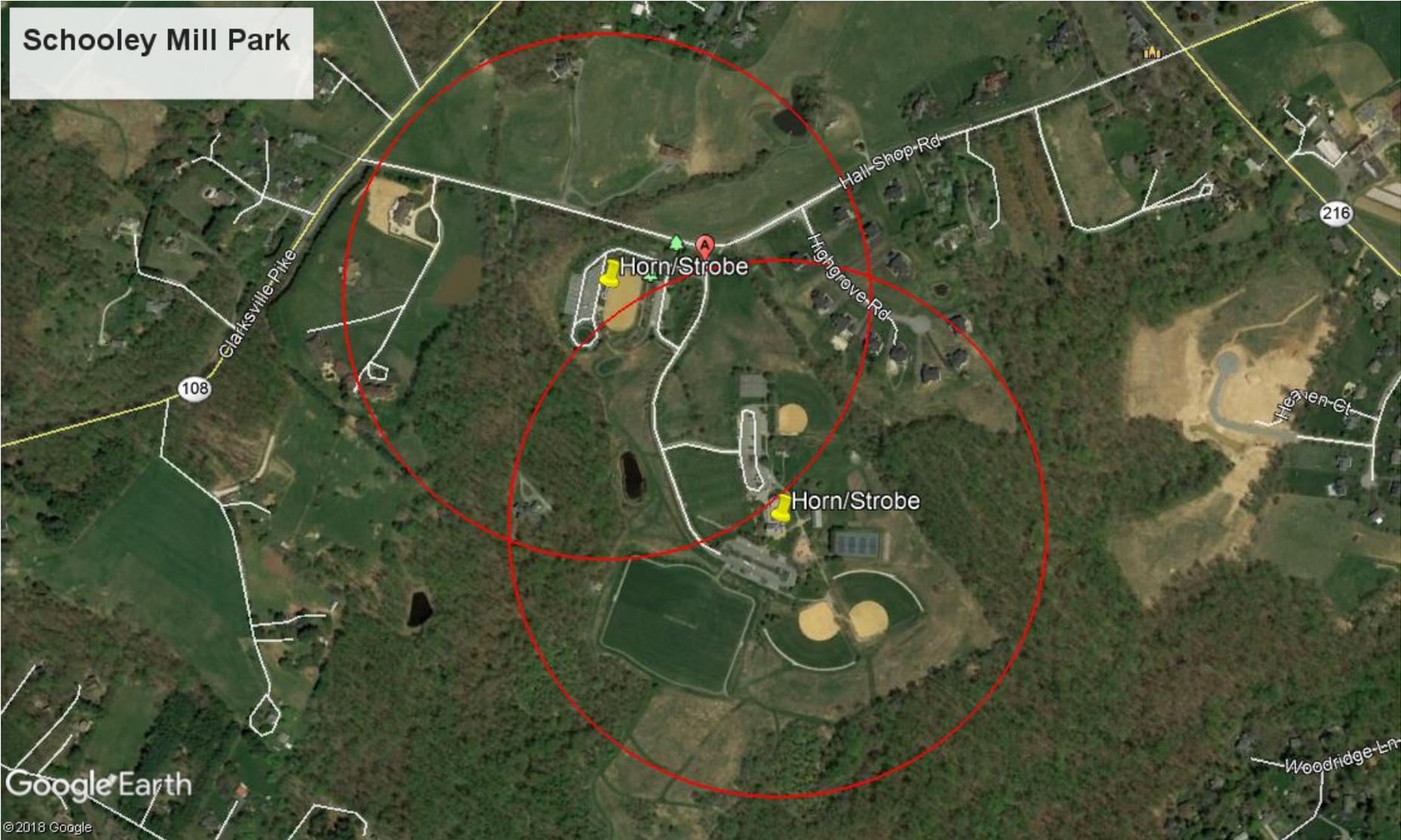
Rockburn Branch Park



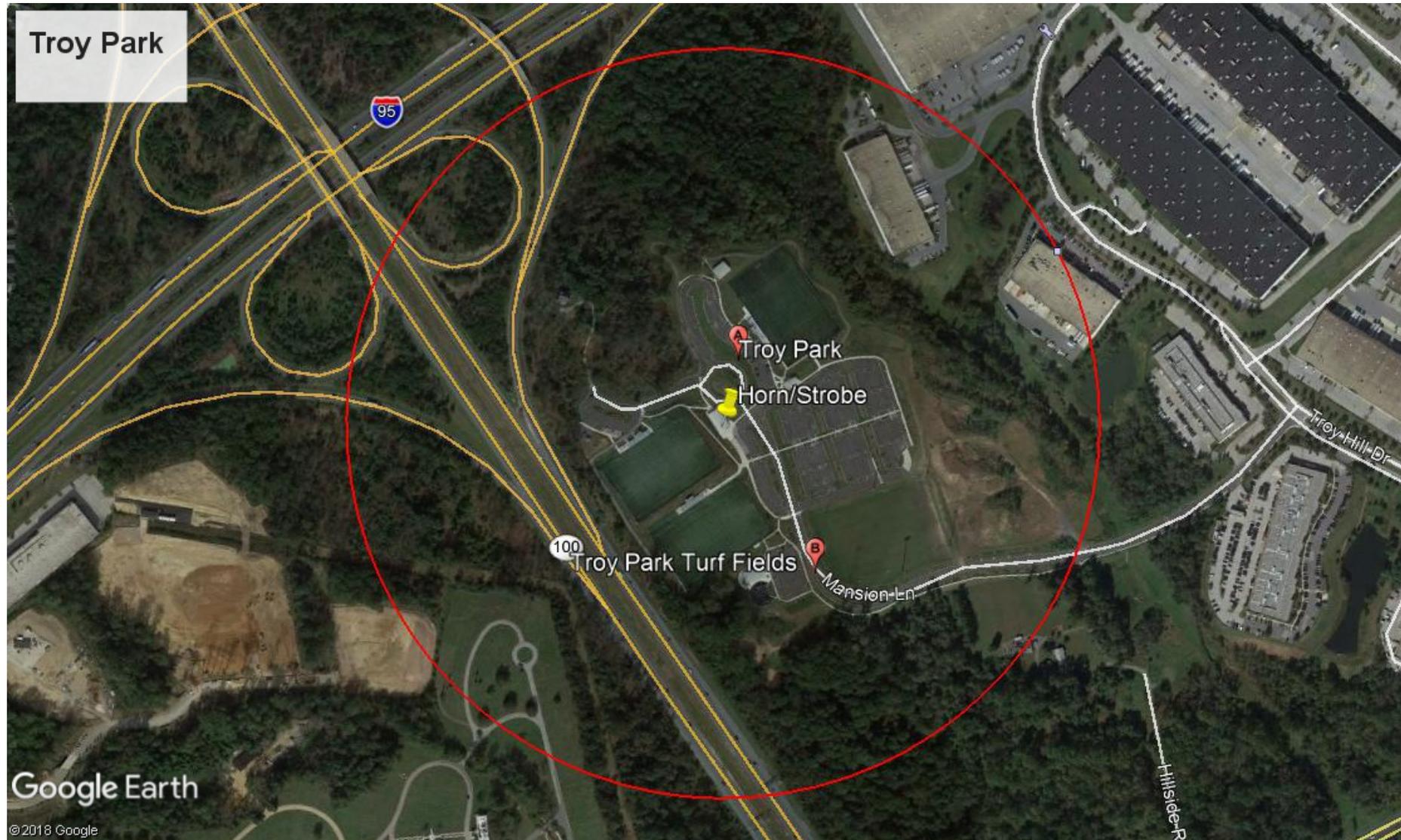
Savage Park



Schooley Mill Park



Troy Park - Elkridge



Western Regional Park



Total Lightning Detection

- Integrated with Earth Networks Total Lightning Network for cloud-to-ground and in-cloud lightning detection
- Extremely accurate and early alerts
- High density lightning network provides redundancy, high reliability, efficiency, and location accuracy for alerts

High-Decibel Signal

- System comprised of both horn units and strobe lights
- 360 degrees of audible and visual coverage
- Single or multiple siren sites equipped with a built-in battery backup

Customizable Configuration

- Provides decision makers with a web-based interface
- Configure hours of operation, lightning-strike distance and alert duration
- Multiple delivery methods for warnings and alerts

Earth Networks

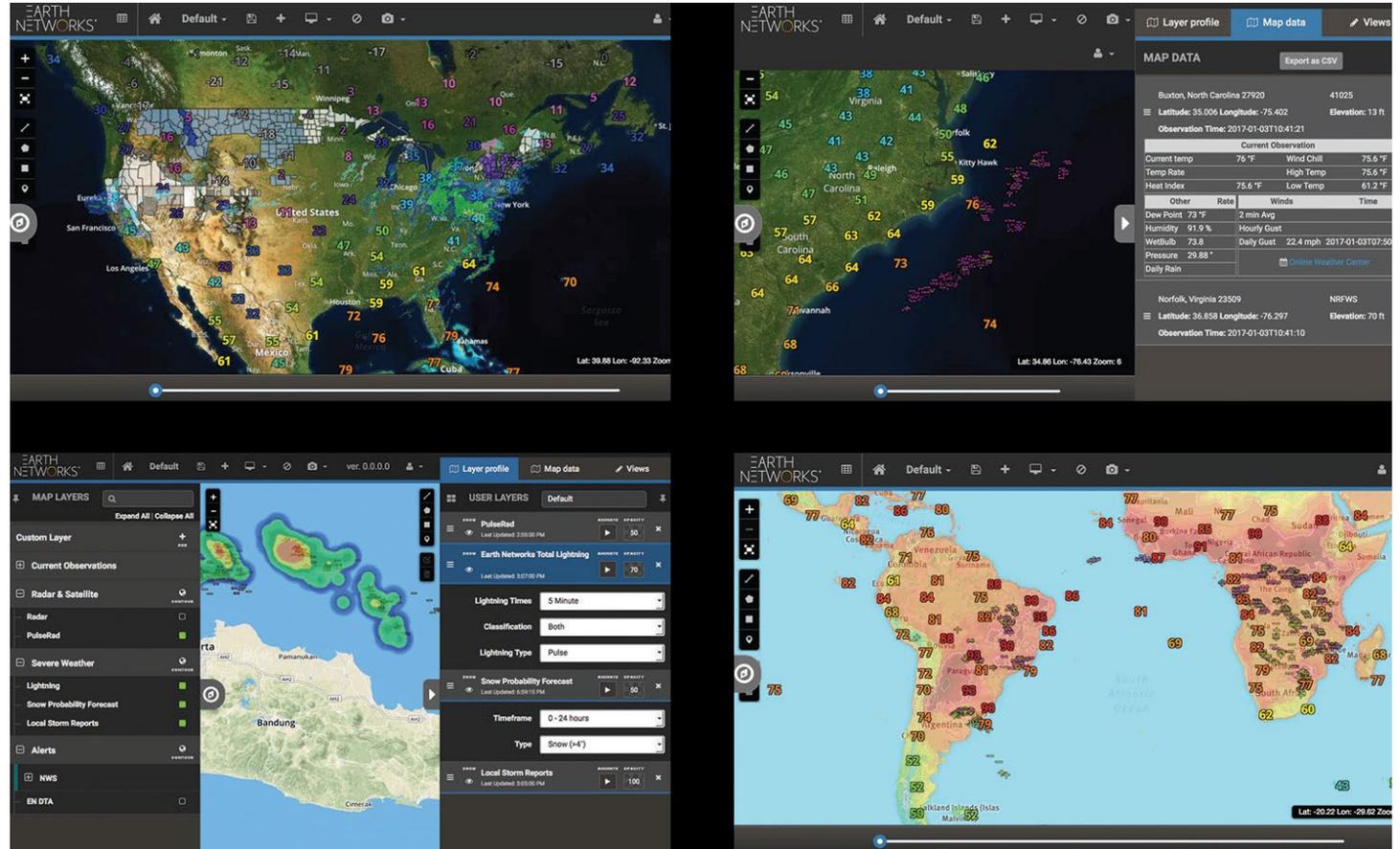


How does Earth Networks lightning and severe weather alerting work?

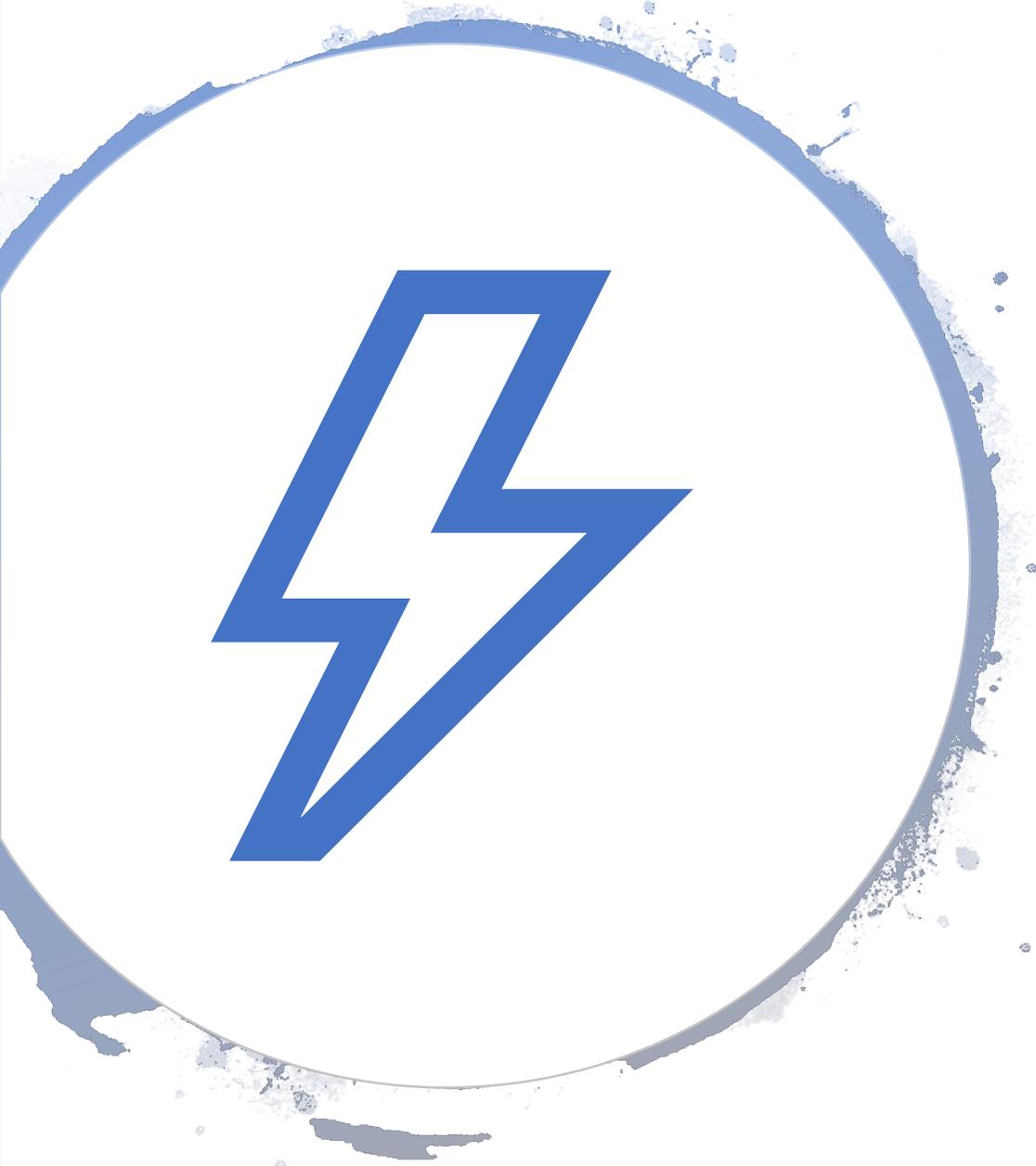


Sferic Maps – Visualization of Lightning & Severe Weather

- Maximize your response efforts with advanced warning
- GIS-based navigable map with animated RADAR and satellite overlays
- Access to entire network of stations
- View live, local data points such as lightning, wind speed and rain rates
- Web based access for decision-makers.



Community Concerns



Audible Horn

- When lightning breaches the pre-determined alert radius (typically 10-miles away), the horn will sound for 15-seconds along with the strobe light
- Due to the 360-degree configuration of the horn, some residents may hear the alarm
- The horn is configured to go off ONLY during the hours the park is open
- Once lightning has gone from the alert radius, an “all clear” horn will sound three times for 5-seconds

System Testing

- The horn and strobe light will be tested once per month during the day when severe weather is not predicted



Weather Stations

- Hyperlocal real-time information
- Customizable
- World's largest weather network
- Dependable data & transmission

- Components
 - Rain gauge
 - Temperature
 - Humidity
 - Wind anemometer
- Access to online portal providing a truly hyperlocal forecast, highs/lows, totals of averages, and graphs for virtually all weather variables over the past 6 months



Questions

