Using GIS to Deliver Local Government Solutions

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COUNTY OF MARTIN
STATE OF FLORIDA
Objective

- Deliver GIS apps using enterprise GIS and integrated back office apps
- Local Government templates and other ESRI tools
- Improve productivity; saving time and money
Tools

- ArcGIS Server
- Local Government Templates
- ArcGIS Online
- ESRI App
- Collector App
- Other County Applications
FEMA Flood Zone Comments

• ArcGIS Online ‘public’ Map
• Collaboration and sharing between government agencies
• Shared with FEMA as the county’s official comments.
• Developed and deployed in a few hours
• Solution functioned for a specified time period and then turned off.
Fema FIRM Notes: drainage for bridge does not appear to be considered.

Comments: drainage for bridge does not appear to be considered.

Created By: gnonlfr@martin.fl.us

Created: 6/24/2013, 2:40 PM

Last Edited: 6/24/2013, 2:41 PM
Road Maintenance

- ArcGIS Server Map Service
- Event mapped from our asset management system
- Deployed using ArcGIS Online and ESRI app
- Field crews use GPS enabled iOS devices
- Ensures that road assets they are about to repair are County maintained.
Road Maintenance

Maintenance Responsibility

- Unknown
- Federal
- State
- County
- City
- Private
- Airport
- Surety
- Joint Maintenance
Park and Recreation Finder

- Provides residents and visitors with an easy way to find:
  - Parks near them,
  - Park by its name, or
  - Recreation opportunities offered in parks
  - Links to Reservation system, Flickr photo gallery and websites

- No GIS editing is required
- Maintenance of park attributes performed in a backend system updates this application
Address Collection

- Field collection of all addresses in the County to ensure compliance addressing code
- Used staff already in the field; multiple departments
- Follow up by sending inspectors out to ensure compliance.
- Collected via ESRI app; via iOS devices
Damage Assessment

- Collects structural damage assessment during emergency response activities
- Provides Situational and Operational Awareness
- Involves multiple agencies
- Citizen assistance
Choose a Feature Type

Damage Points
- Destroyed
- Affected
- Minor
- Major

Damage Lines
- Destroyed
- Affected
- Minor
- Major

Damage Polygons

Damage Lines: Minor

<table>
<thead>
<tr>
<th>Damage Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor</td>
</tr>
</tbody>
</table>

Comments

Water Depth (Inches)
Damage Assessment Dashboard - DAD

**Life Safety Summary**

<table>
<thead>
<tr>
<th>Total ER Zones</th>
<th>Incomplete ER Zones</th>
<th>Complete ER Zones</th>
<th>Percent Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>209</td>
<td>193</td>
<td>15</td>
<td>7.66%</td>
</tr>
</tbody>
</table>

**Population Damaged**

- Total: 24,405
- Housing Units Damaged: 9,922
- Damage Value: $610,637,500

**Windshield Summary**

<table>
<thead>
<tr>
<th>Total ER Zones</th>
<th>Incomplete ER Zones</th>
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<th>Percent Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>209</td>
<td>199</td>
<td>10</td>
<td>4.78%</td>
</tr>
</tbody>
</table>

**Population Damaged**

- Total: 6,680
- Housing Units Damaged: 2,676
- Damage Value: $338,959,708

**Type**

- SF: Total = 2,621
  - Dest.: 491
  - Major: 482
  - Minor: 669
  - Aff.: 979
- MF: Total = 52
  - Dest.: 14
  - Major: 18
  - Minor: 9
  - Aff.: 13
- MH: Total = 2
  - Dest.: 0
  - Major: 2
  - Minor: 0
  - Aff.: 0

**Map Details**

- Damage Points: Destroyed, Major, Minor, Affected, Damage
- Windshield Polygons: Destroyed, Major, Minor, Affected
- Inaccessible Areas: Debris, Flooding, Powerline, Road Damage, Accessible

**Map Sections**

- 30-6, 30-7, 30-11, 30-14, 30-10, 30-12, Slater ST, Gran Park Way

**Additional Elements**

- Citizen Lookup, Reports, Maps, Archives, Help,
  Administration tabs available

**Legend**

- Damage Assessment Dashboard - DAD

**Note**

- The image displays a comprehensive overview of damage assessment parameters and geographical impact.
Road Rating

- Assists with determining projects costs and priority
- Use of the ESRI Collector App
- Streaming
- Rapid collection of road repair methods to be used in analysis
- Integrates with asset management system for other road attributes needed to assist with prioritization
Pre-Incident Planning
• Fire Rescue staff are working to identify requirements
• Customizing attributes selection for each inspection
• View any history of that data
• Fire Rescue is currently outfitting their vehicles with laptops and mobile wifi hotspots

Mosquito Control
• Currently in the requirements gathering phase
• 3rd party solution was being evaluated
• ArcGIS toolset can deliver a solution