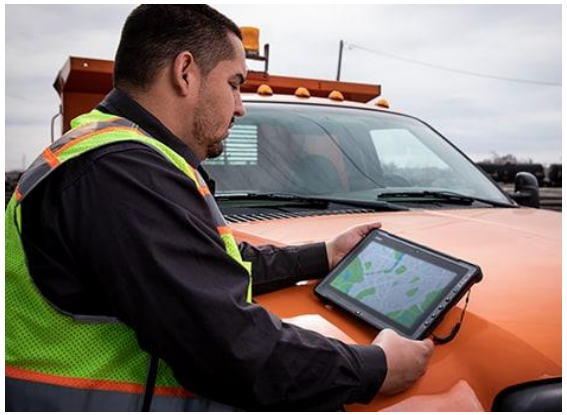
SOUTHERN TIER WEST
REGIONAL PLANNING AND DEVELOPMENT BOARD

COMMUNITY GIS (CGIS) PROGRAM



Johnathon Mayr, GISP
April 6, 2023

Overview

Utilizing the Southern Tier West Community Geospatial Information System (CGIS) program, a municipality can quickly and easily map municipal assets such as road signs, culverts, shut-off valves, and even cemeteries! Data is collected and displayed in real-time, on your mobile device; and can be shared throughout municipal departments with ease. Create custom maps with the touch of a button that can be shared digitally or printed, to create work orders and visual aids

- Easy to Use, Industry Leading ESRI Mapping Software
- INSTANT In-Field Access to Your Data
- No Intensive Training Necessary, READY TO GO!
- Ability to Create Complete Inventories of Your Municipal Assets
- Create Custom Maps and Work Orders
- Real-Time Data Sharing Between Departments

Who's Participating?

45 Municipalities Currently Enrolled

Chautauqua County:

- Chautauqua County
- C. of Jamestown
- C. of Dunkirk
- T. of Clymer
- T. of Ellery
- T. of Kiantone
- T. of Cherry Creek
- T. of Chautauqua
- T. of North Harmony
- T. of Poland
- T. of Mina
- T. of Stockton
- T. of Busti
- T. of Westfield
- V. of Lakewood

Cattaraugus County:

- Cattaraugus County
- T. of Mansfield
- T. Of Olean
- T. of New Albion
- T. of Franklinville
- T. of Carrollton
- T. of Otto
- T. of Machias
- T. of East Otto
- T. of Yorkshire
- T. of Randolph
- T. of Perrysburg
- T. of Lyndon
- T. of Farmersville

Allegany County:

- Allegany County
- Allegany Co. SWCD
- T. of Clarksville
- T. of Willing
- T. of Angelica
- T. of Belfast
- T. of Grove
- T. of Alfred
- T. of Granger
- T. of Allen
- T. of Friendship
- T. of Andover
- T. of Almond
- T. of New Hudson
- V. of Belmont
- V. of Cuba

Why Participate?

- Improve Communication and Collaboration
- Easy-to-Use, Affordable Asset Management
- Streamline and Standardize Field Data and Workflows
- Access Up-To-Date Information From Anywhere at Any Time
- Legacy Data Entry Means Data is Updated as Entries Occur, NOT Erased
- EASILY Access Photographs and Inspection Histories of All of your Municipal Assets

The Software / Apps

The STW CGIS program is designed to utilize powerful ESRI software to collect and display data in real-time while in the field. This makes sharing data between municipal entities and exporting data for use in other programs seamless.

esri

THE SCIENCE OF WHERE™

ESRI Survey123

ESRI Field Maps

ArcGIS Collector

For Use on Your Mobile Device(s)

ESRI Survey 123

Used in the **FIELD** to **COLLECT** data points and attributes. There are currently 10 surveys available, but more are being developed and will be available soon! If you have an idea or a need for a specific survey, we can work together to build something that fits your needs!

ESRI Field Maps

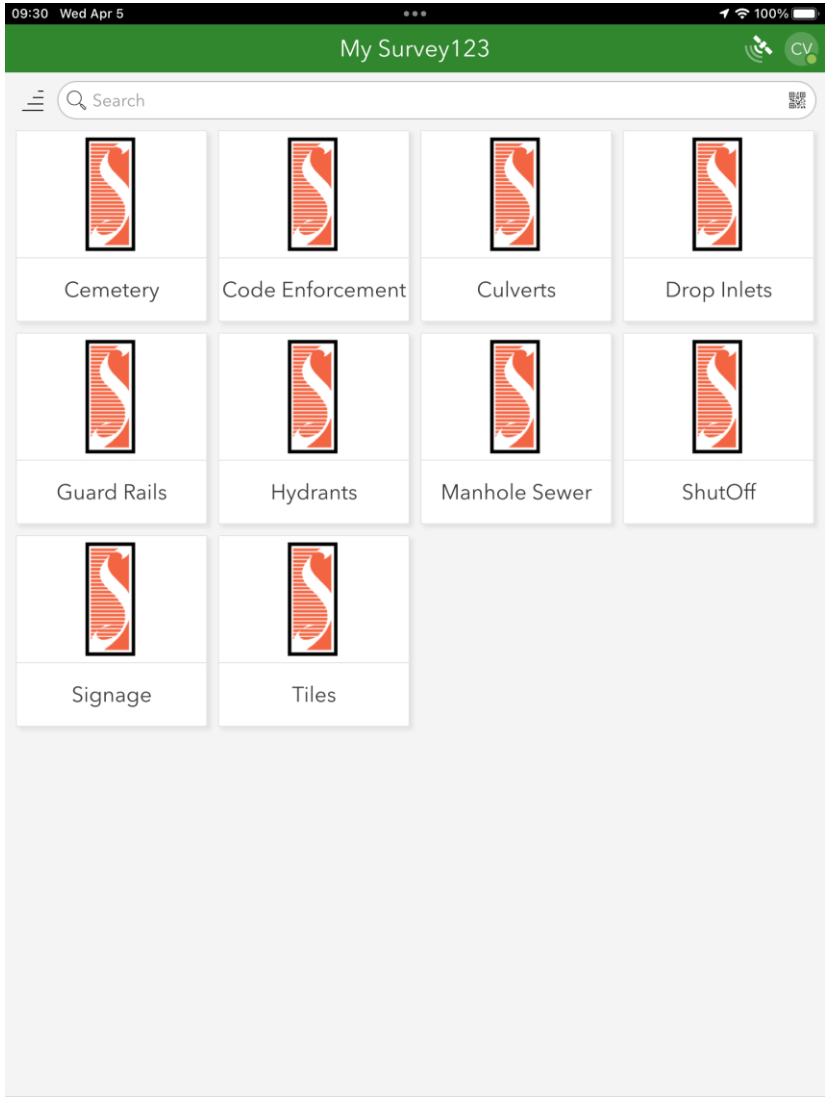
Used in the **FIELD** to **VIEW AND EDIT** data points and attributes on your device(s). Although some viewing and editing CAN be done in the Survey 123 app, this app allows the user to have full editing rights to the data that they have collected. Your town map is already pre-loaded into the app upon login and ready to go!

For Use on Your Desktop Computer (Office Computer)

ArcGIS Collector

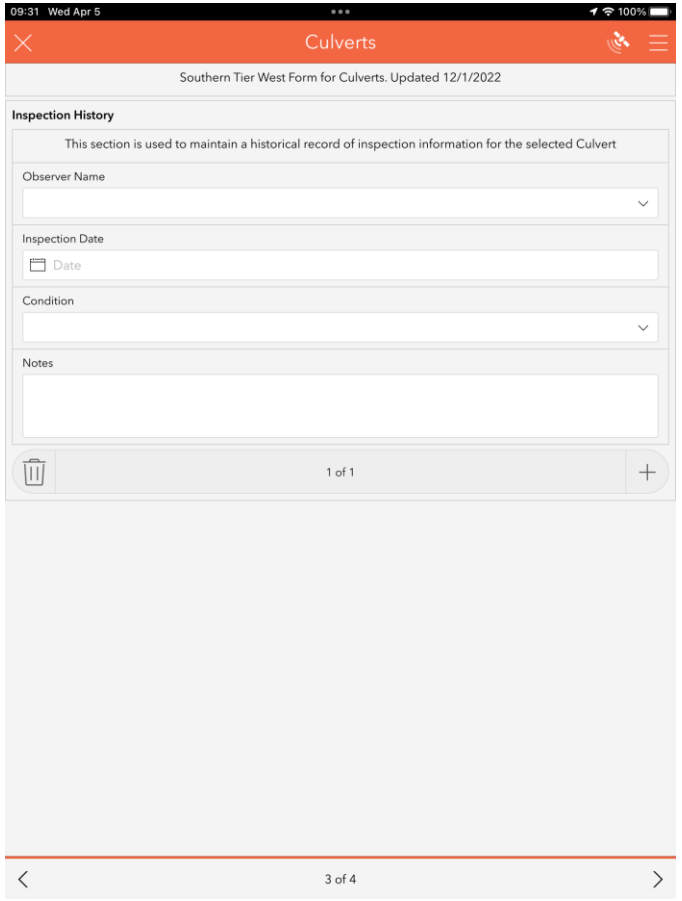
Used in the **OFFICE OR HOME** to **VIEW AND EDIT** data points and attributes on a laptop/desktop computer. This software gives the user full editability rights with the ability to change symbology, edit points and information, view photos, etc. Your town map is already pre-loaded into the app upon login and ready to go!

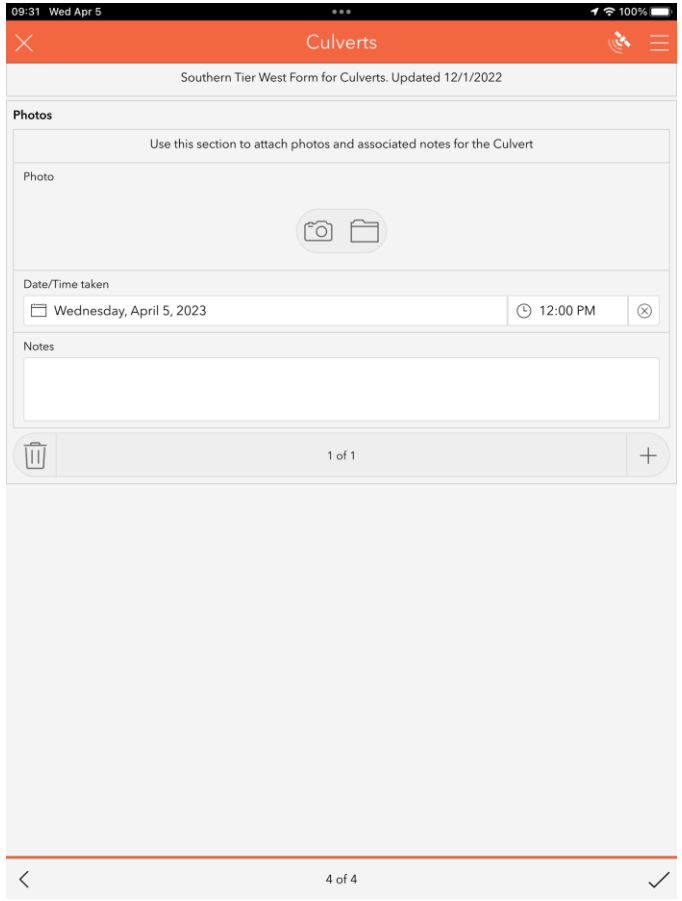
ESRI Survey123 - Surveys



- Surveys are already created and ready to use:
  - Cemeteries
  - Code Enforcement
  - Culverts
  - Drop Inlets
  - Guard Rails
  - Hydrants
  - Manhole Sewer
  - Shutoffs
  - Signage
  - Tiles
- Ability to edit existing surveys as needed
- Ability to create new surveys to capture new datasets

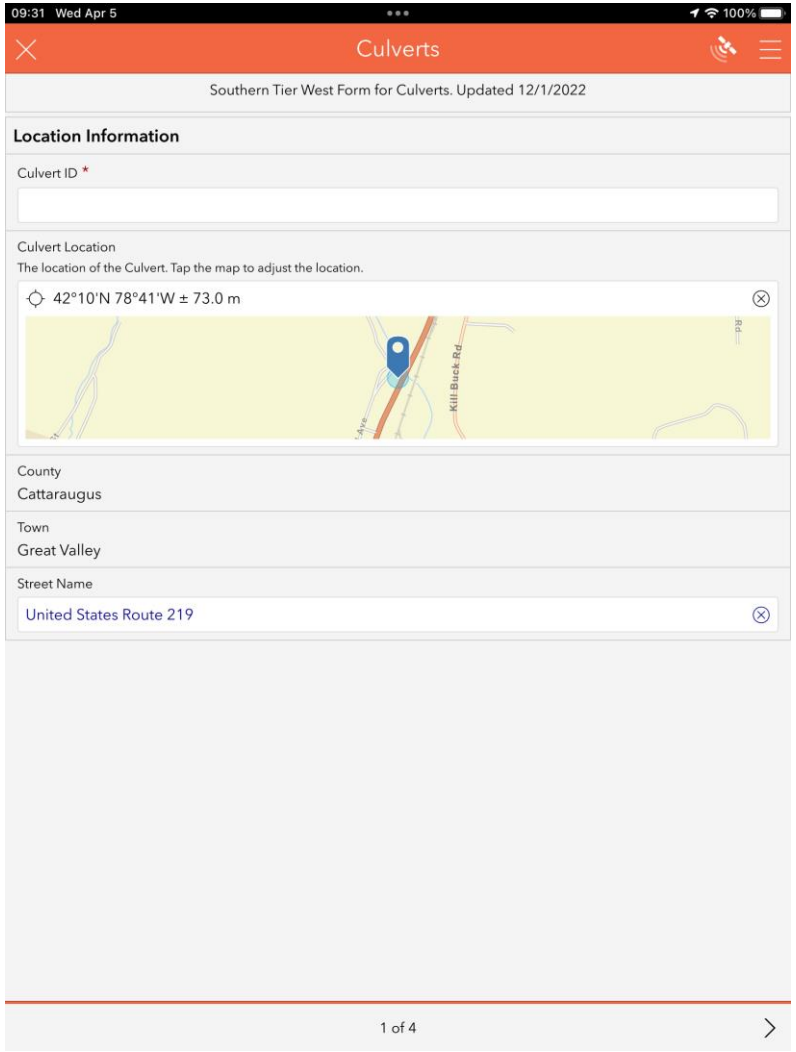
ESRI Survey123 – Inspection History





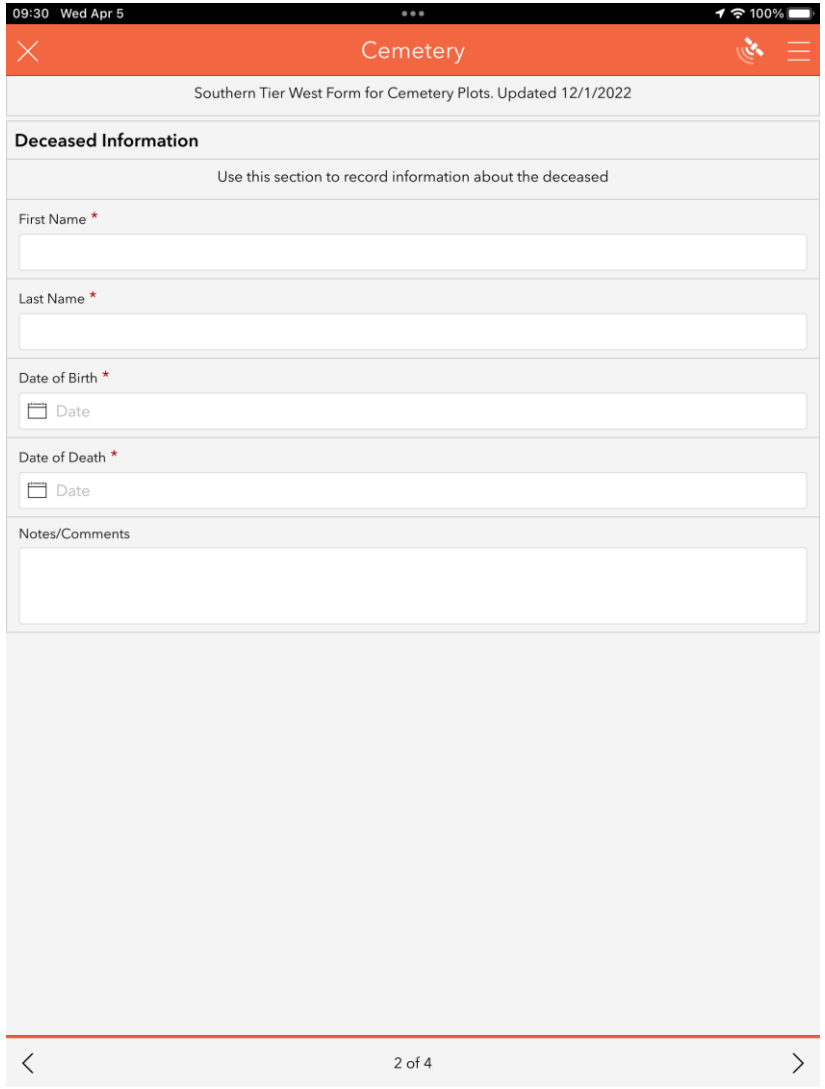
- Built into every survey
- Ability to add photographs of any asset
- Legacy items update as new entries are made:
  - Inspection history
  - photographs
  - notes/comments
- Older records are saved and accessible through the same screen

ESRI Survey123 - Location

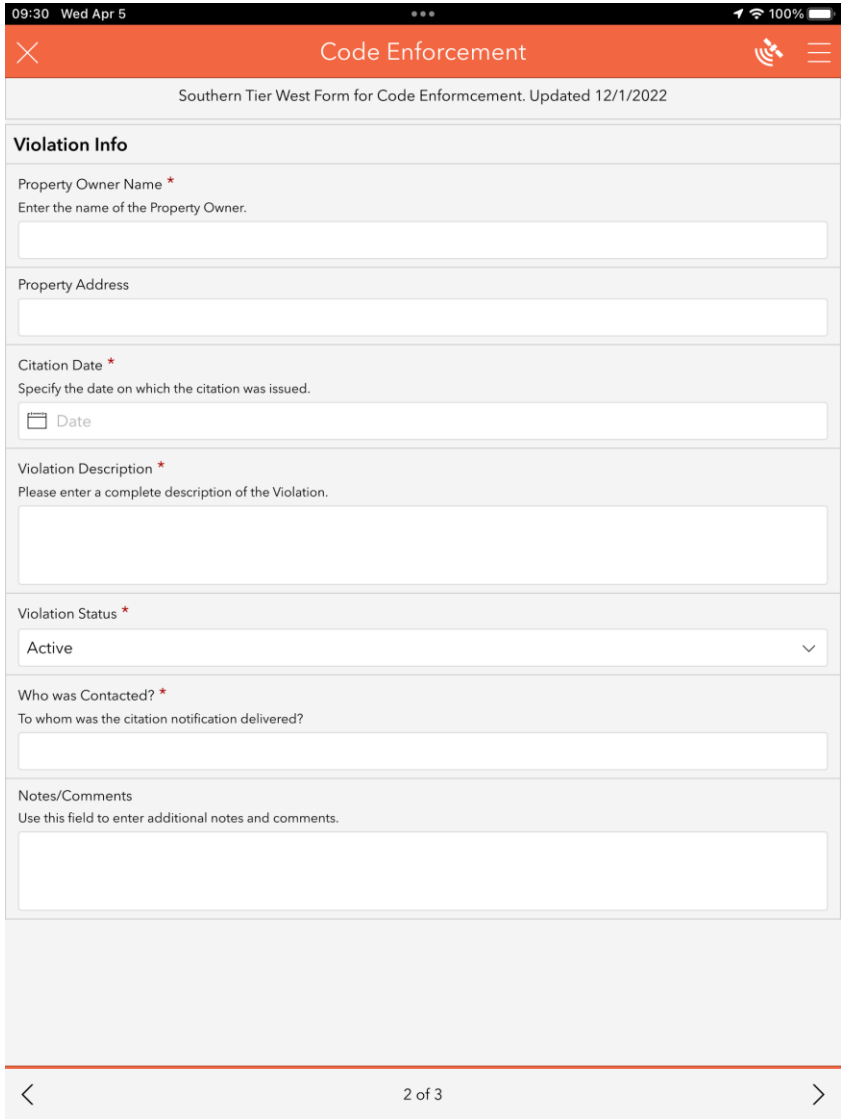


- **ID FIELD**
  - First letter of asset type
  - First 3 letters of street name
  - Number system
    - **ALWAYS keep uniform system for data collection**
- Built into every survey
- Automatically populates location information
- Able to be manipulated or “tweaked” by data collector

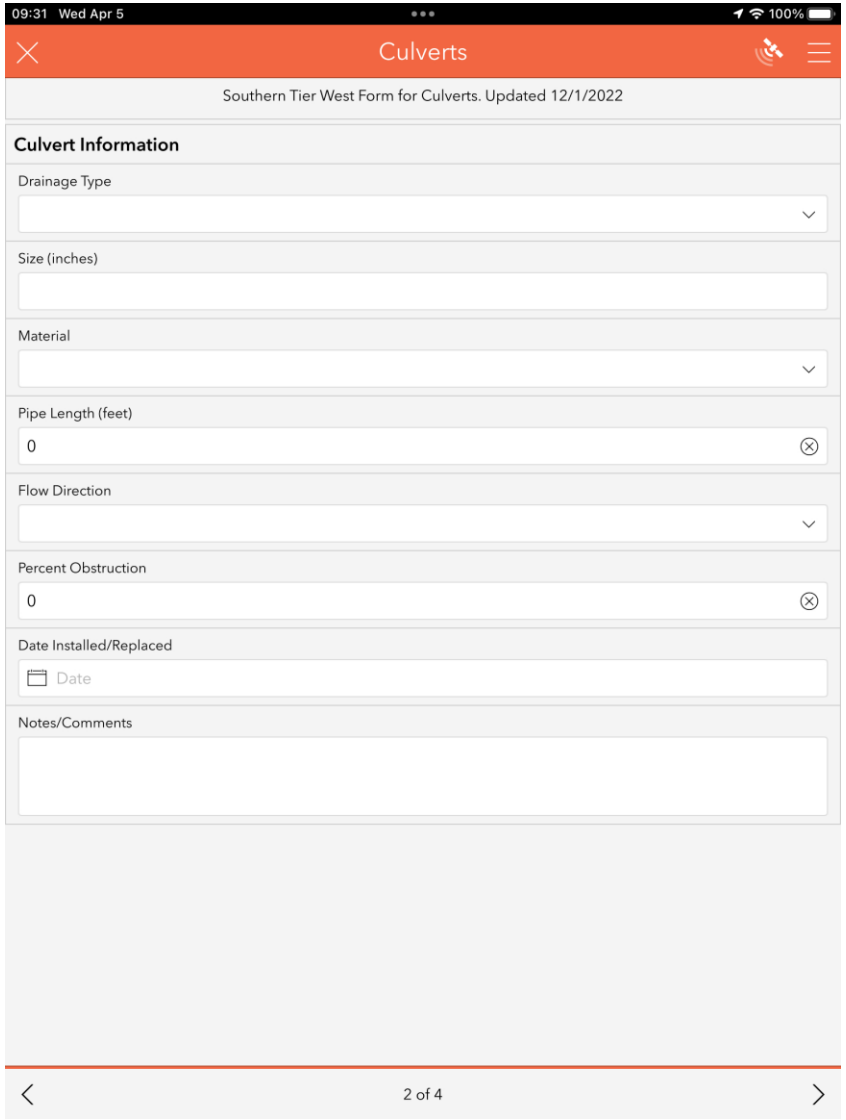
ESRI Survey123 - Cemeteries



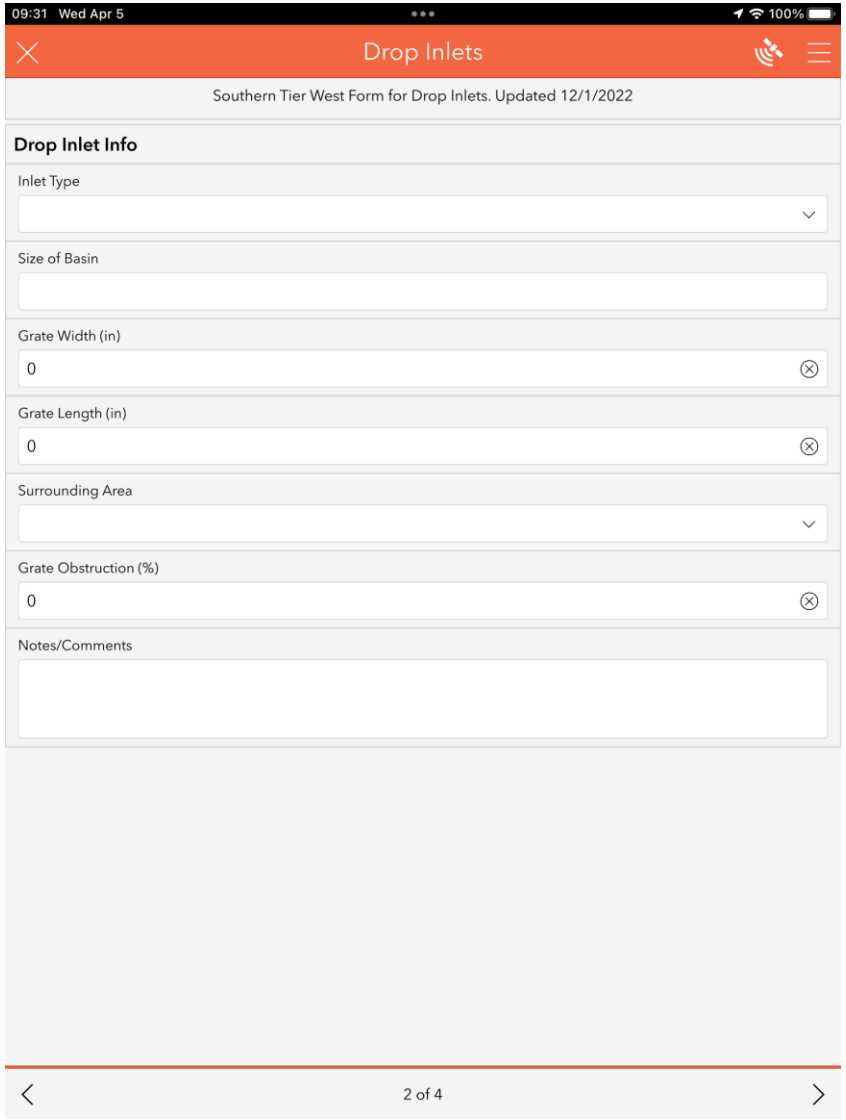
ESRI Survey123 – Code Enforcement



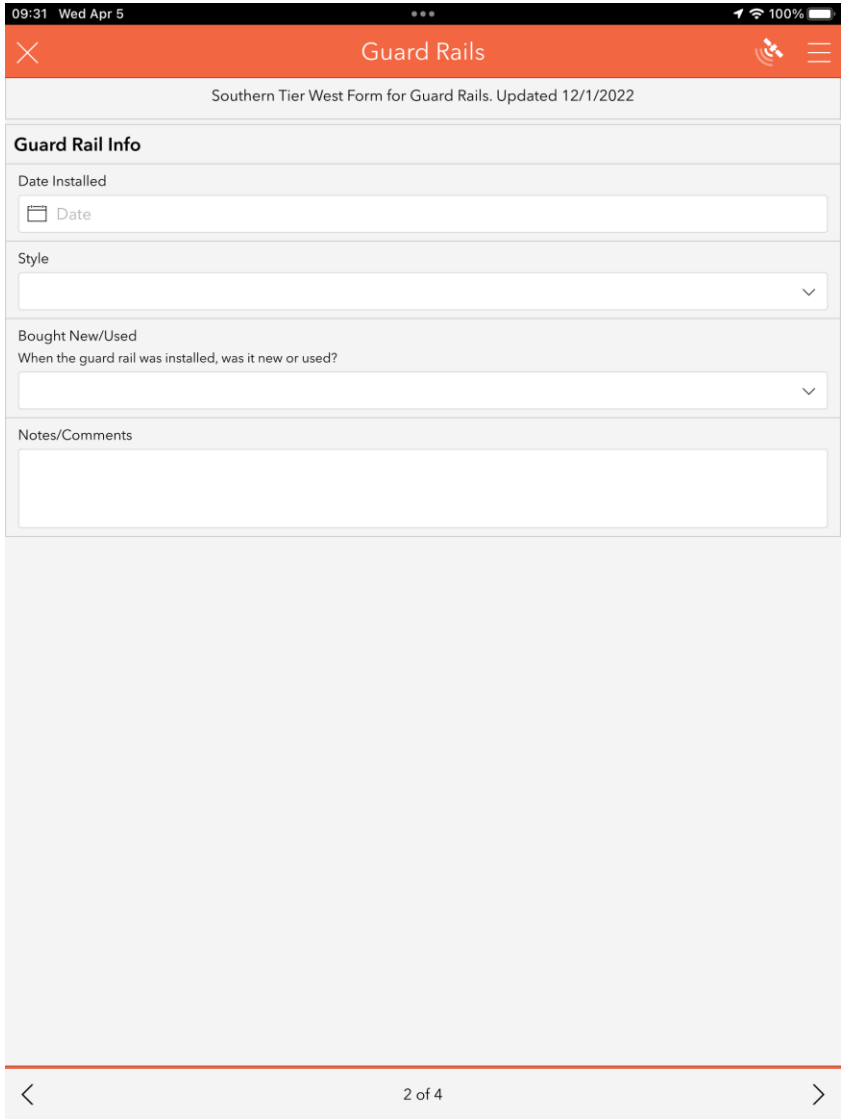
ESRI Survey123 – Culverts



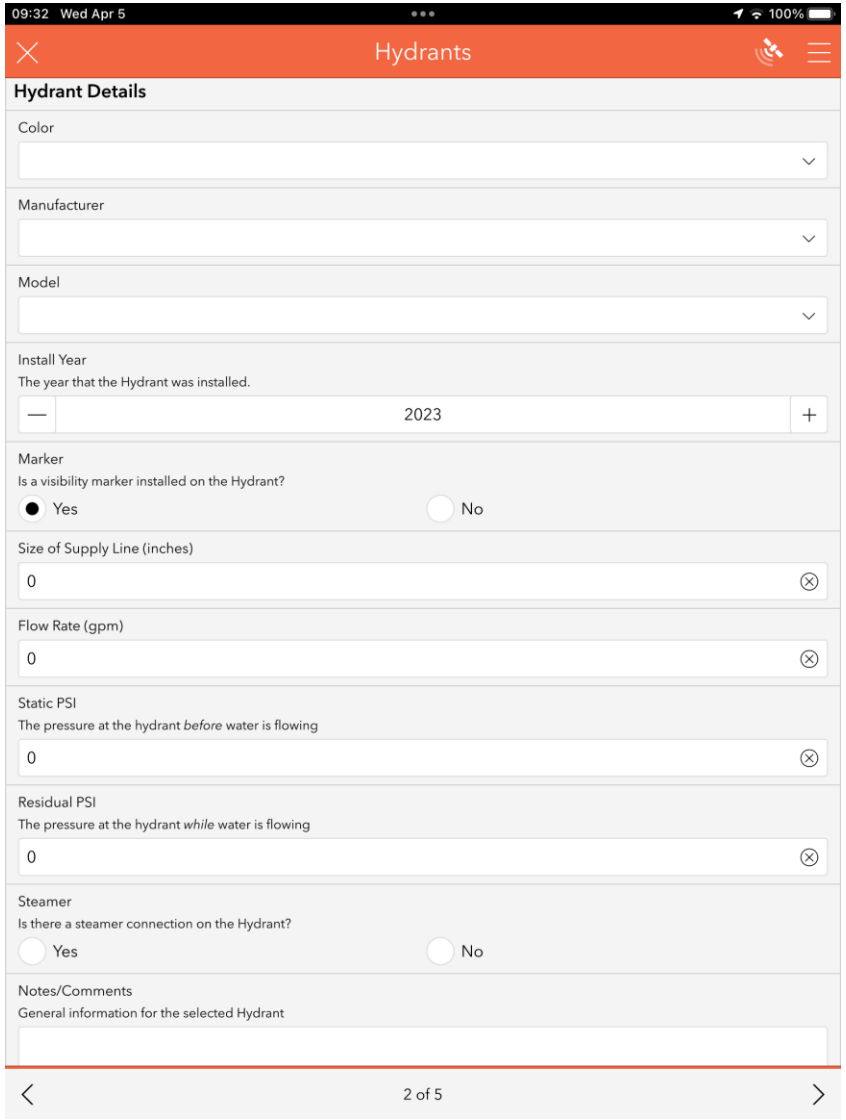
ESRI Survey123 – Drop Inlets



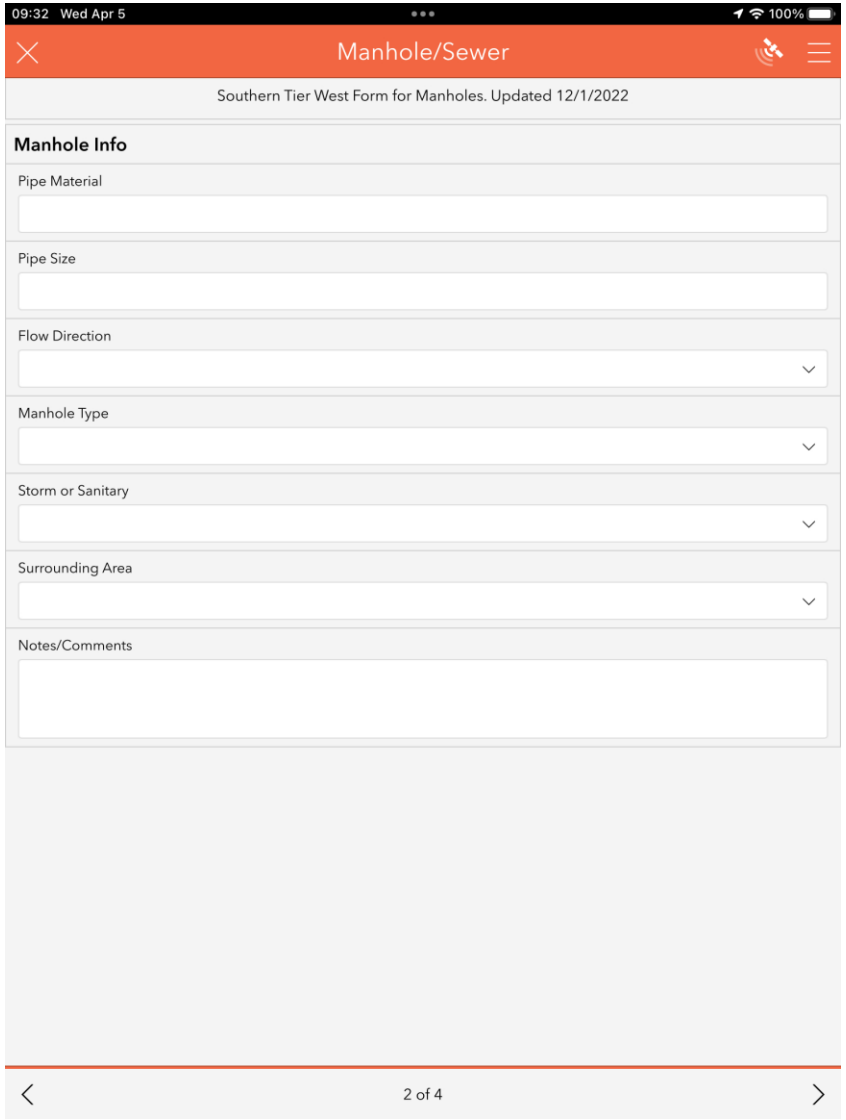
ESRI Survey123 – Guard Rails



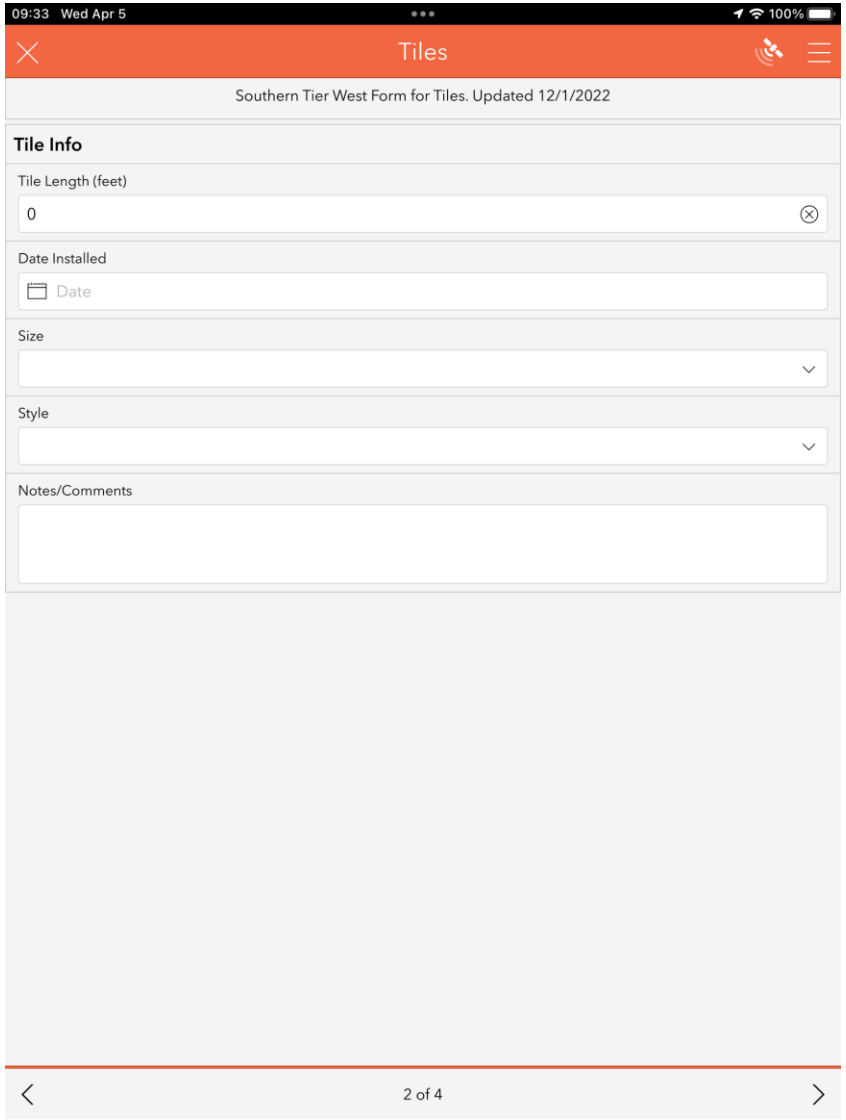
ESRI Survey123 – Hydrants



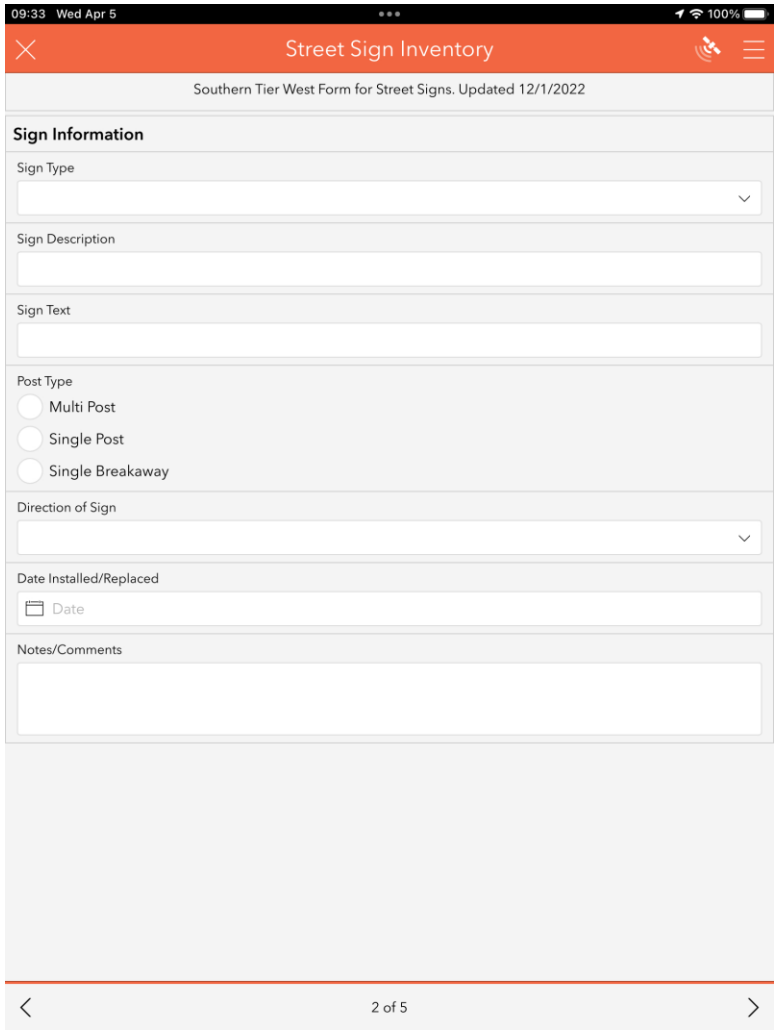
ESRI Survey123 – Manhole Sewer

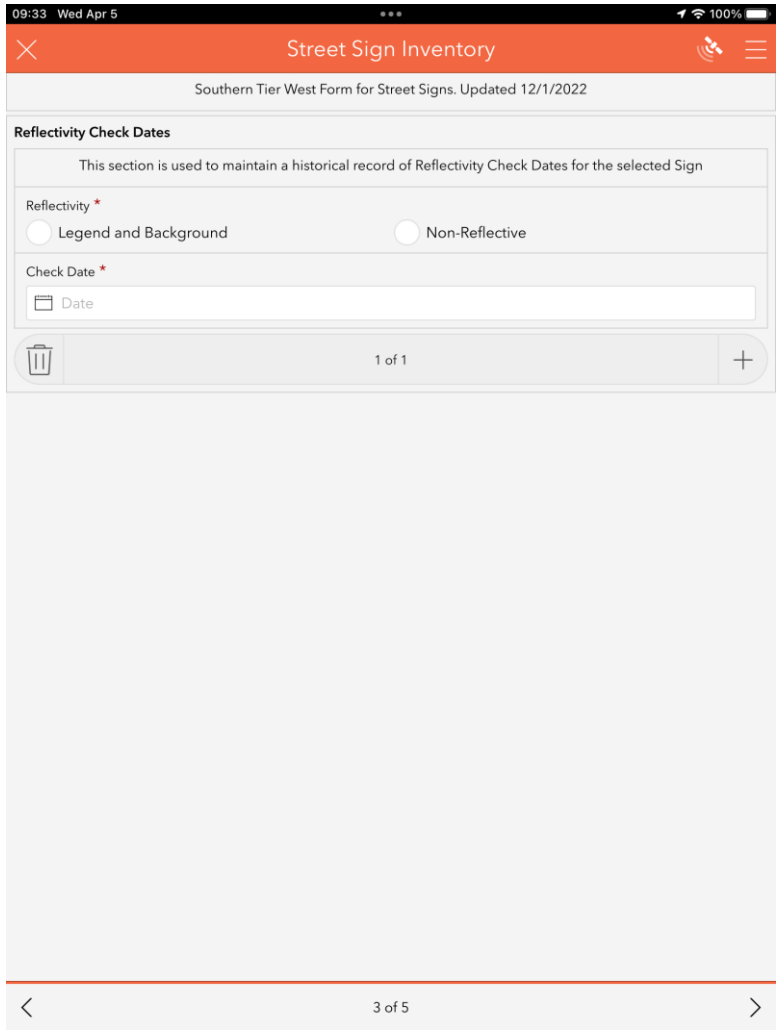


ESRI Survey123 – Tiles

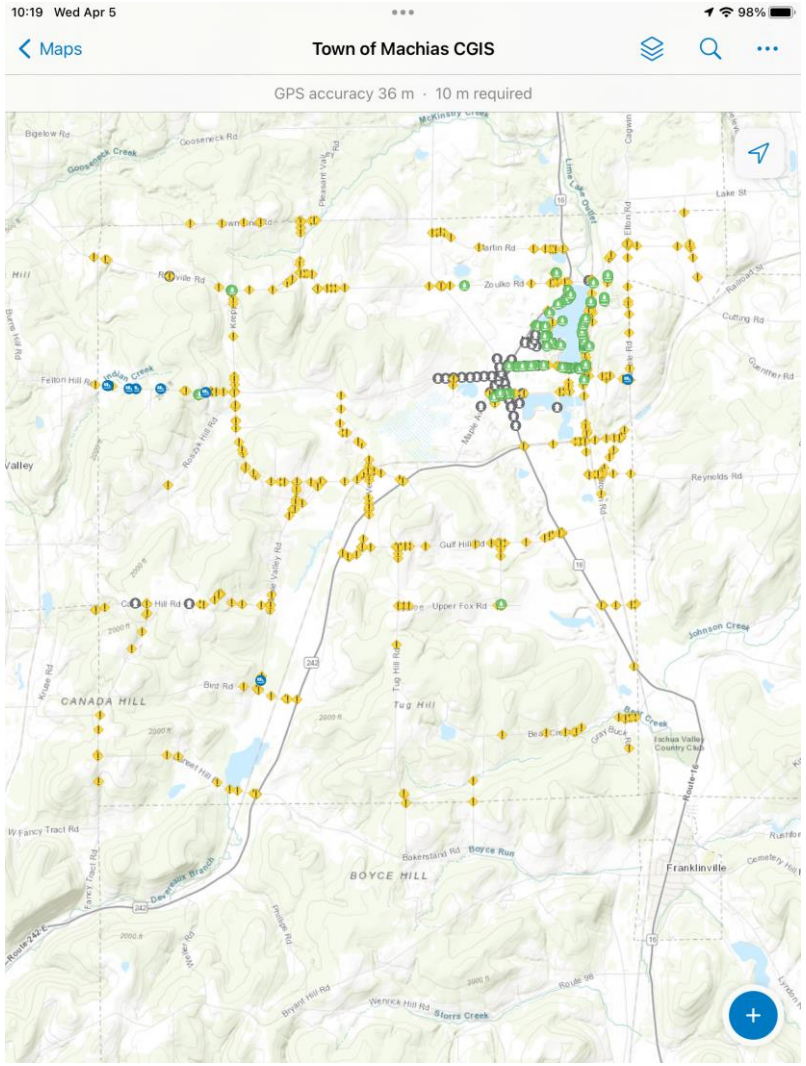


ESRI Survey123 – Signage



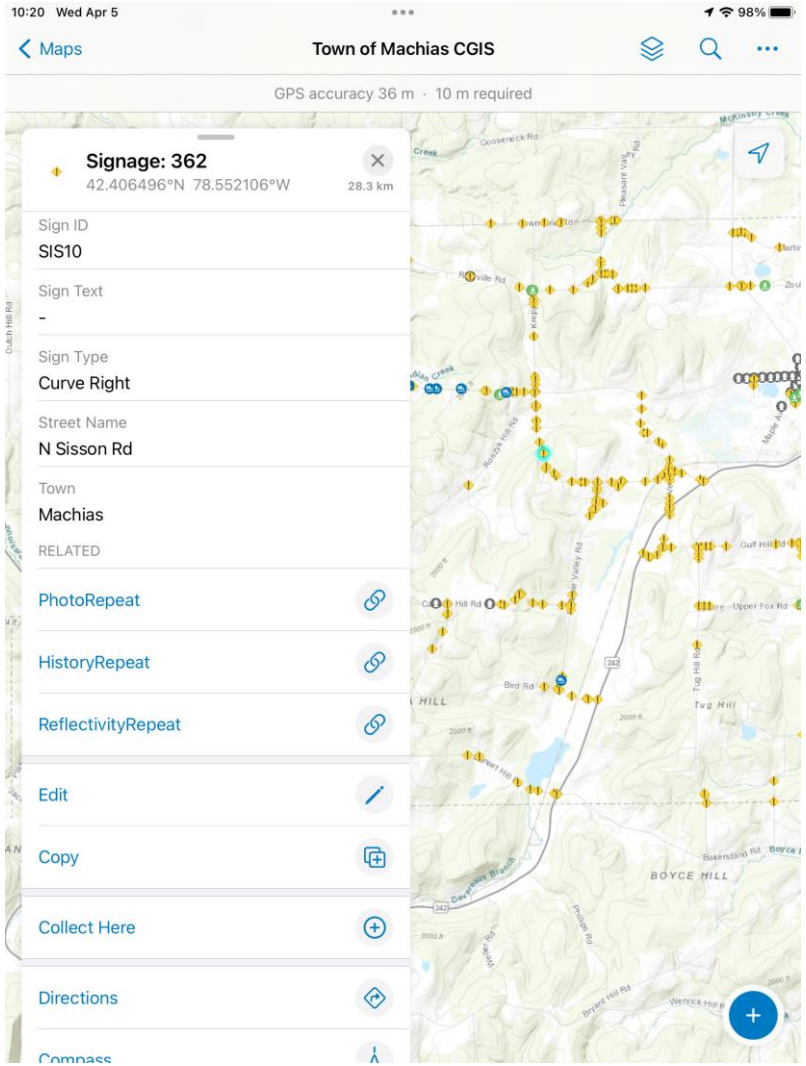


ESRI Field Maps



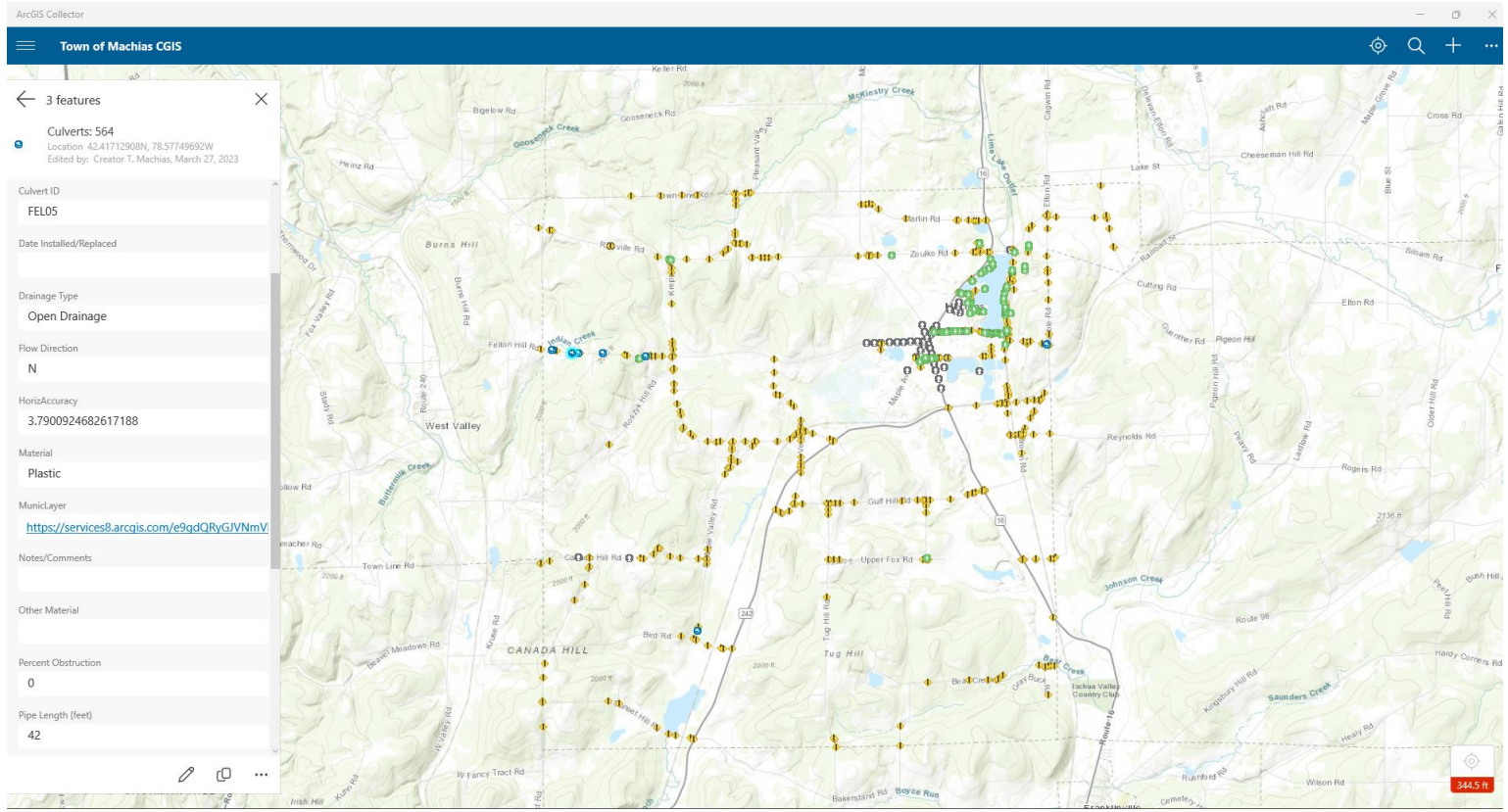
- Same log-in credentials used throughout **ALL** apps
- Data collected in Survey123 is instantly pushed into Field Maps
- Landing page is municipal map
  - All data collected is shown here
- Editable symbology makes maps user friendly and easy to read
- All assets easily accessible to view or edit
- Edits made in field maps are pushed to all other corresponding apps

ESRI Field Maps



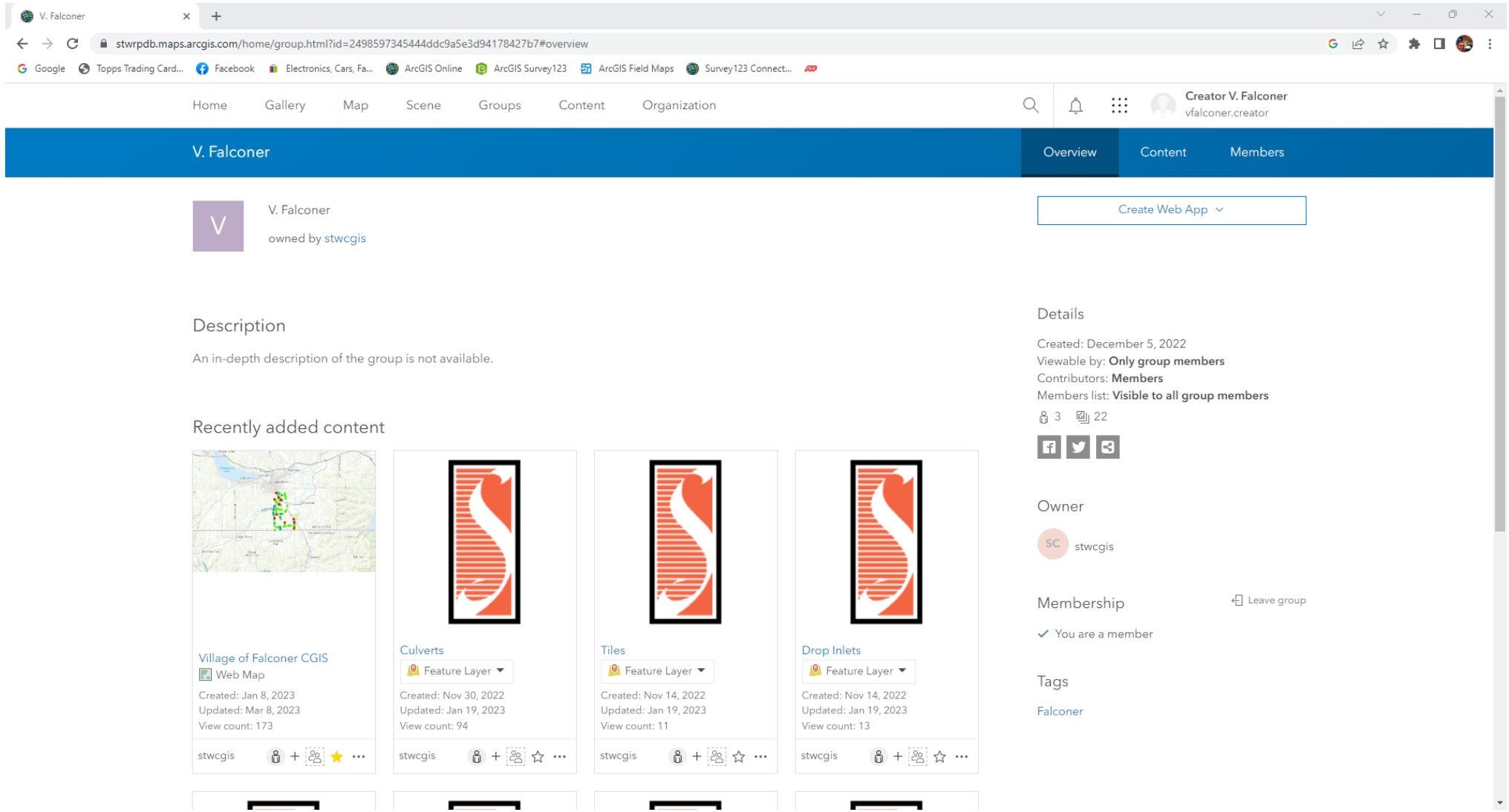
- Easily toggle viewable layers
- Click on an asset to view detailed information
- Reverse locate any data point quickly and easily
- Ability to edit, mark-up, and filter data
- Create, print, and share maps instantly
- Take maps offline
- Change basemaps to show terrain
- Ability to do simple measurements and analysis

ESRI ArcGIS Collector

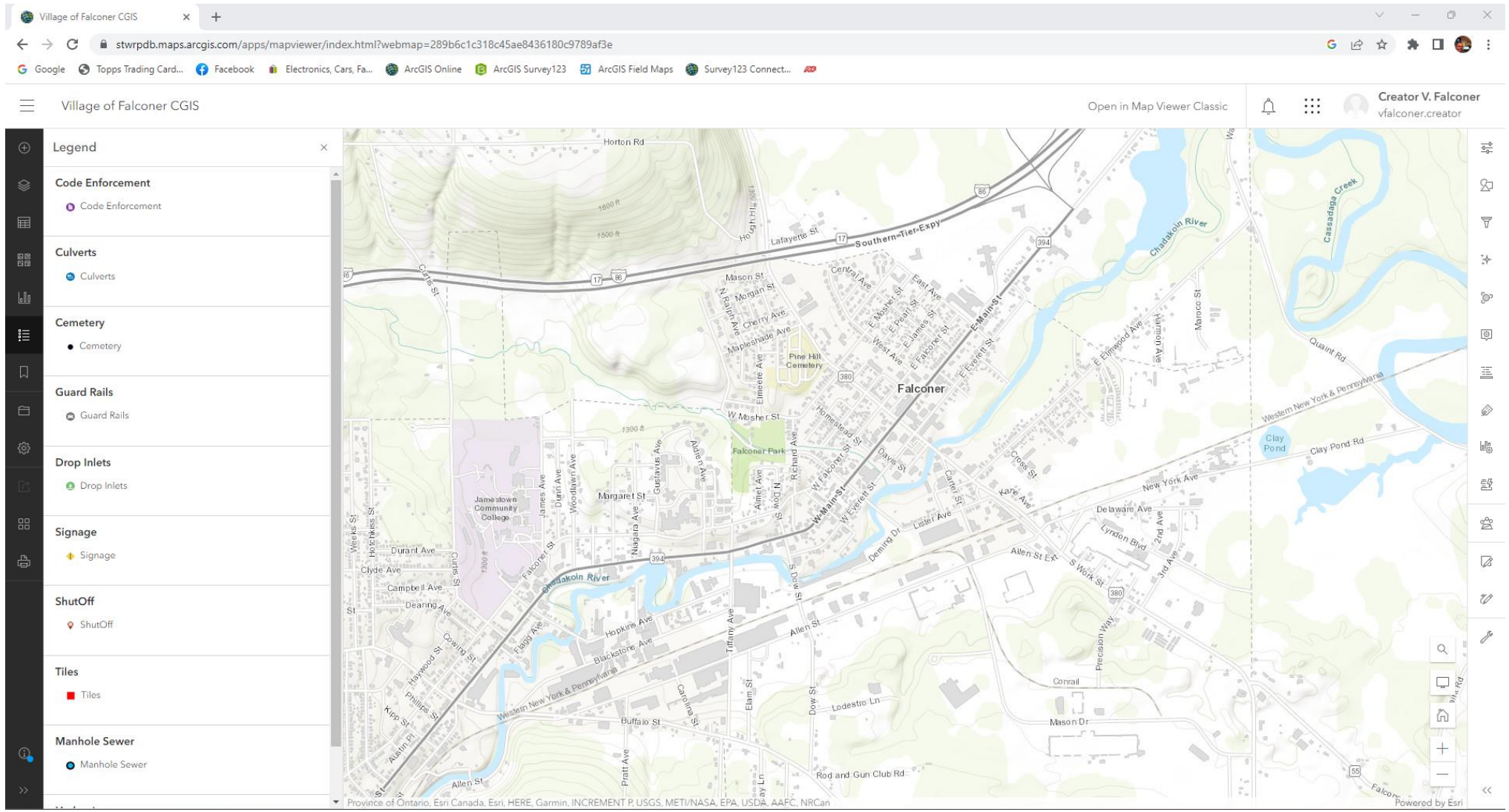


- **Same as Field Maps mobile app but for use on desktop computer**
- Same log-in credentials used throughout **ALL** apps
- Landing page is municipal map
  - All data collected is shown here
- Editable symbology makes maps user friendly and easy to read
- All assets easily accessible to view and/or edit
- Edits made in ArcGIS Collector are pushed to all other corresponding apps

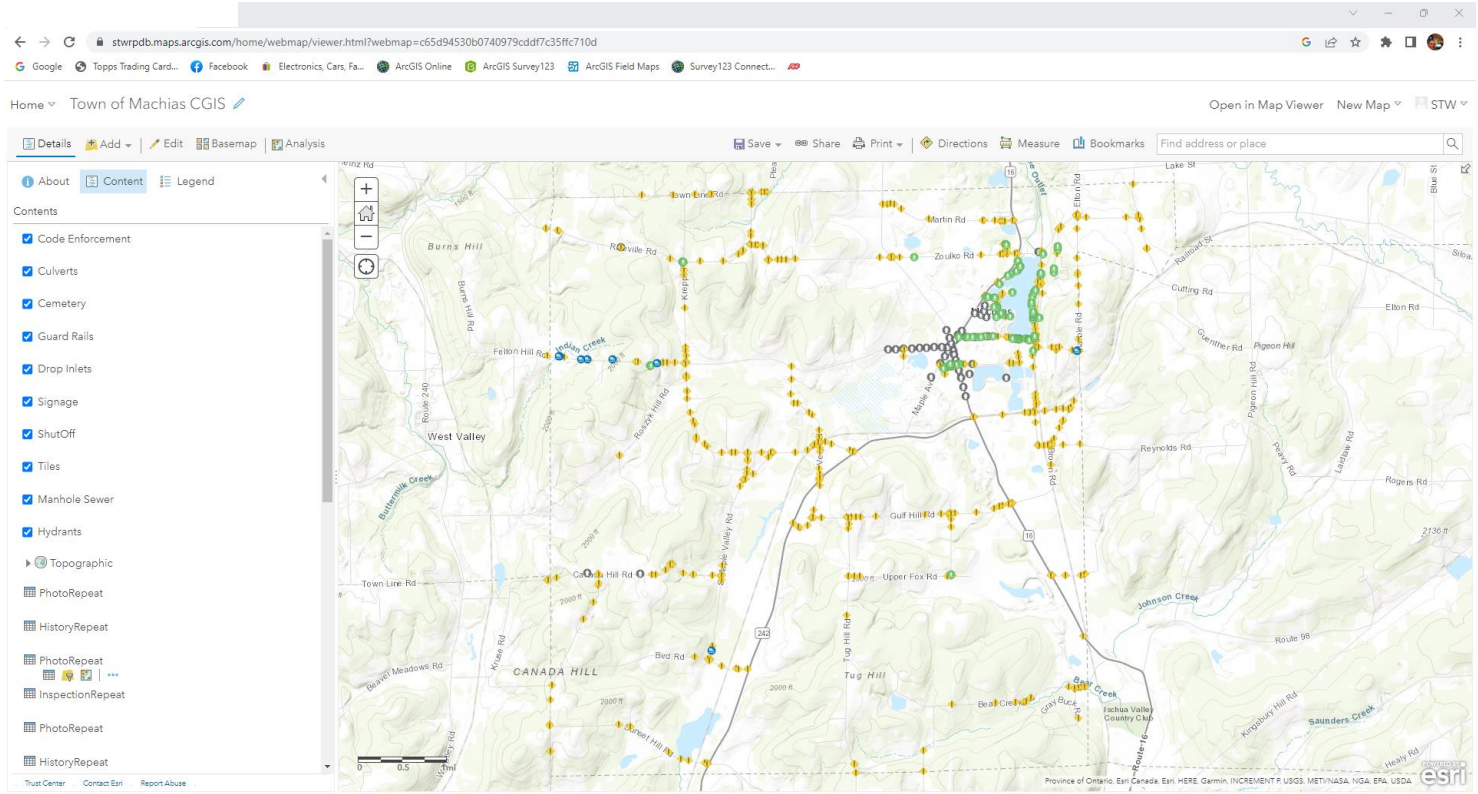
ArcGIS Online



ArcGIS Online

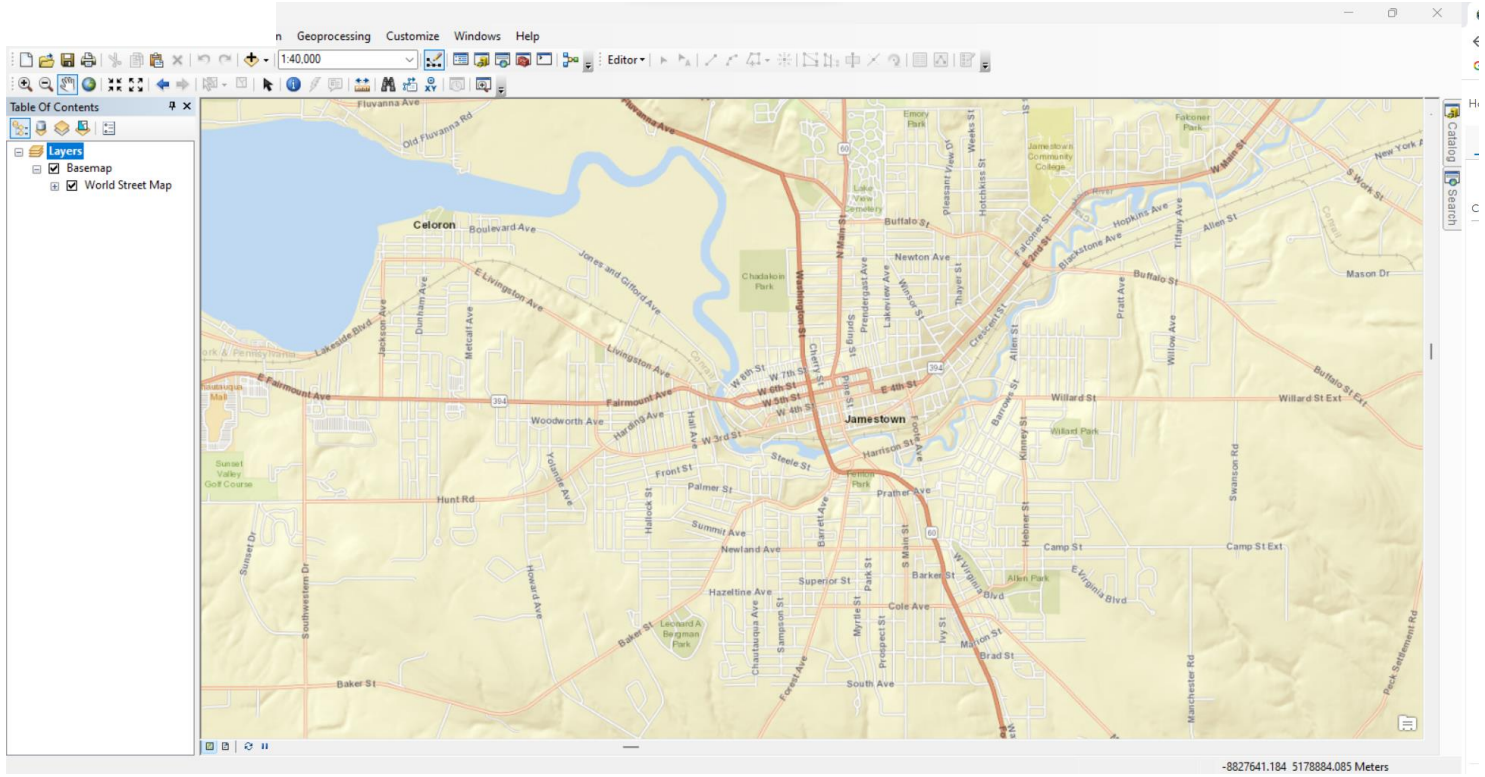


ArcGIS Online



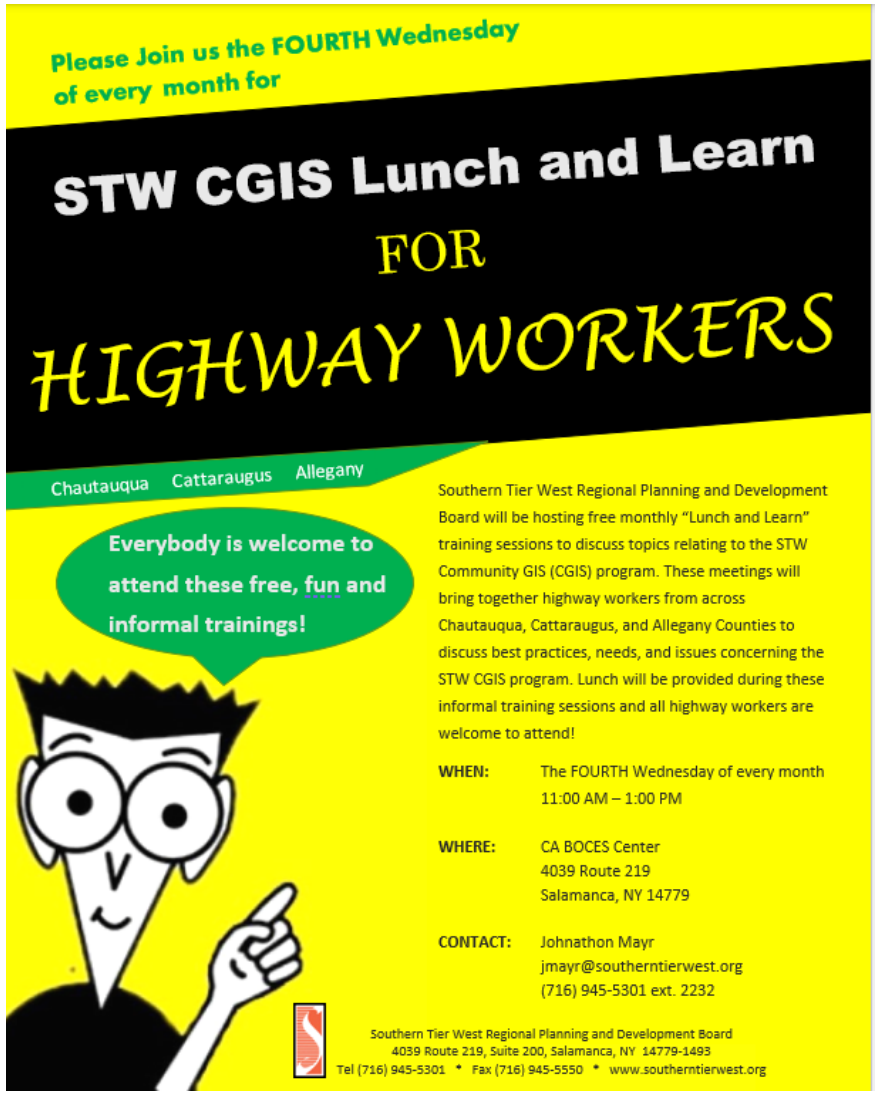
- **FULL editability rights**
  - Able to view and manipulate source data
- Able to add other shapefiles and layers to your map from outside sources
- Run queries and filters to find “useful” data which can be exported as additional layers
- **SAVES MADE HERE ARE PERMANENT!**

ArcGIS ArcMap and Other Software



- Full ESRI suite, including geoprocessing toolboxes and add-ons, available to STW CGIS participants
- ArcGIS ArcMap licenses available for **ALL** municipalities enrolled in the STW CGIS program
- ArcGIS ArcMap licenses are usually $2,000+/year
- Basic, standard, and advanced licenses available
- Monthly training sessions being held to teach basic map-making skills to municipalities

Continued Program Support / Training



FREE Monthly "Lunch and Learn" Trainings

- Brings together municipalities from a 3-county region
- Open to ALL municipalities and departments; regardless whether they are enrolled in the STW CGIS program or not
- Informal, open discussion meetings
- Discuss the software, best practices, updates, user needs, and anything else that has to do with the CGIS program
- Meetings have been well attended with a lot of positive feedback

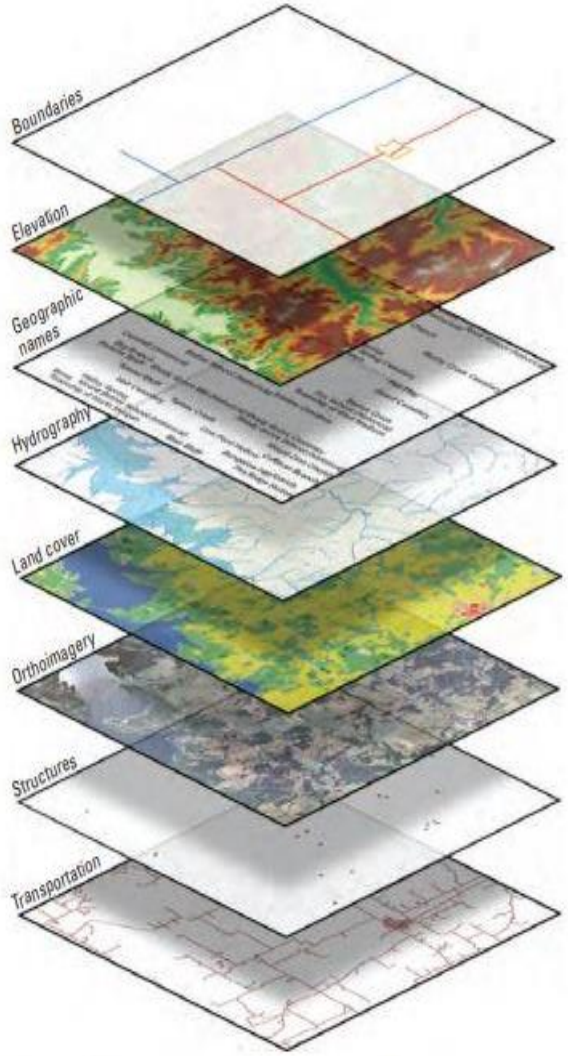
Continued Program Support / Training

On-Demand On-Site Crew Training

If your municipality has multiple departments or an unusually large workforce utilizing the software, STW allows for in-person, on-site trainings for you and your entire crew/department. This ensures that everyone is ready to use the software and competent in their abilities to do so

STW CGIS Program Availability

- The STW CGIS program is a pilot program and there are currently no other programs of its size or scope being actively conducted or attempted anywhere in the US
- The STW CGIS program is currently only open to municipalities in Chautauqua, Cattaraugus, and Allegany Counties in New York State
- **If there is an interest in the Southern Tier Central RPDB area, STW can collaborate with STC to offer a similar program in your region**



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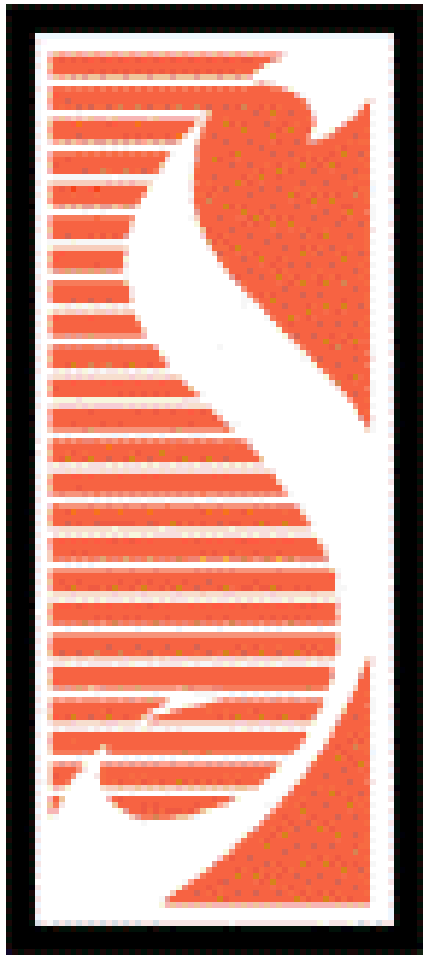

Thank You!

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