Arc GIS Online— Data Collection ESRI Field Maps



Eric Sauer, RLA

Five Rivers MetroParks





Agenda

- Field Maps Overview
- ArcGIS Field Maps
 - Creating a Project Program
 - ► Create Feature Layers for Field Maps
 - Creating a Field Maps Map
 - Using Field Maps
 - Add on Accuracy
 - Analyze Data in ArcGIS Online

Field Maps for ArcGIS

- Replaces Collector, Quick Capture and Explorer
- ► Field Maps for ArcGIS is a mobile data collection app that makes it easy to examine, capture and update accurate data and return it to the office
 - ArcGIS Online Based
 - Points
 - Lines
 - Polygons
 - Photos
 - Requires ArcGIS Online Account



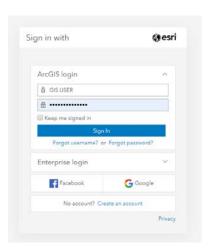
Establish the Program

- What type of data needs to be collected
 - Points
 - Lines
 - Polygons
- What specific data for each data point is required
 - Date/ time collected/ user
 - Identifiers (Owner, name, ID Number), size, type, age, material, condition
 - Photo
 - Standardization of entries (drop down menus) / Mandatory entries
- What is the accuracy requirement for the data
 - How precise does data need to be
 - ▶ 2 CM underground utilities, water valves, endangered plants
 - ▶ Sub meter fire hydrants, light poles, signs, trails, large trees
 - > 3-10 meter parking lot, picnic shelter

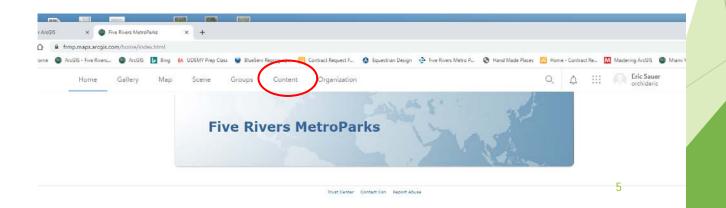
- Sign Into ArcGIS Online-
 - Search for ArcGIS Online

or

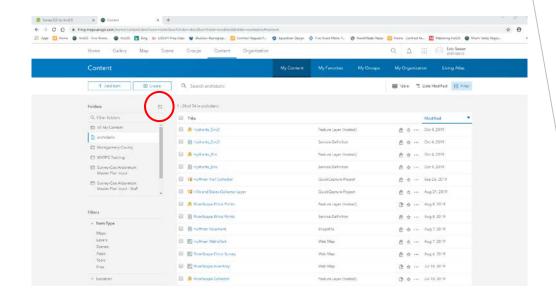
www.arcgis.com



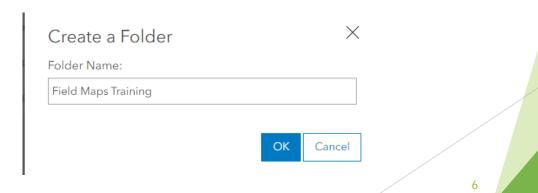
- User Home Page
 - ► Click on Content



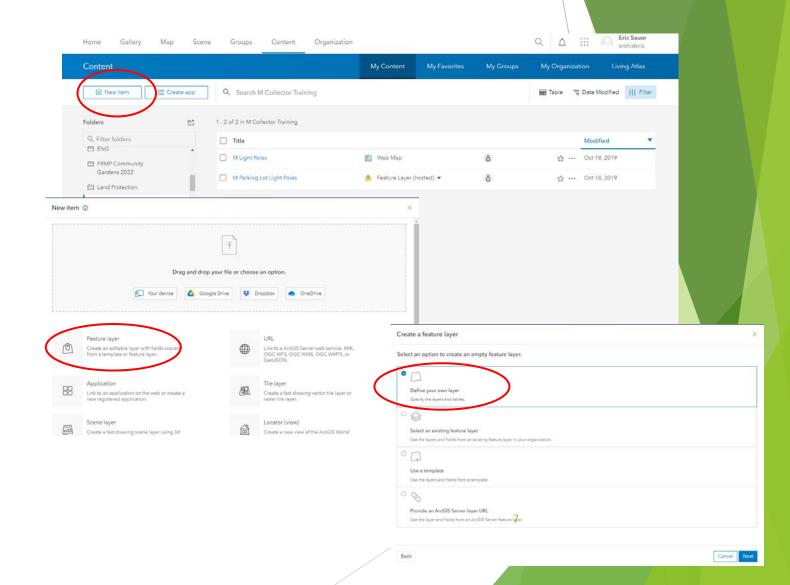
- Create a new project folder
 - Click the new folder button
 - ► Easy location for Feature Layers



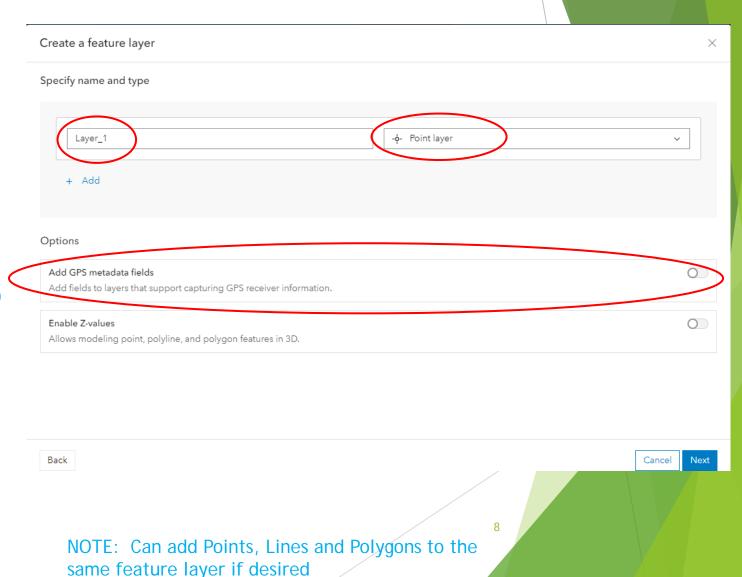
- Name the new folder
 - ► Field Maps Training
 - Press Ok to create the folder



- Create a Feature Layer
 - Press New item button
 - Select from:
 - Templates
 - Pre-built
 - Existing Layers
 - ► Re-use layers from other projects
 - Search Web
- Select Feature Layer
 - Select Define Your Own Layer
 - Click Next



- Create a Feature Layer
 - ▶ Name the Layer
 - Select Layer Type
 - Point
 - Line
 - Polygon
- Add GPS metadata fields toggle
 - Slide the toggle if desired to collect GPS Data
 - Accuracy
 - Receiver information
 - ▶ Date/ Time
 - Coordinates
 - ► Leave the toggle alone for this exercise
- Click Next

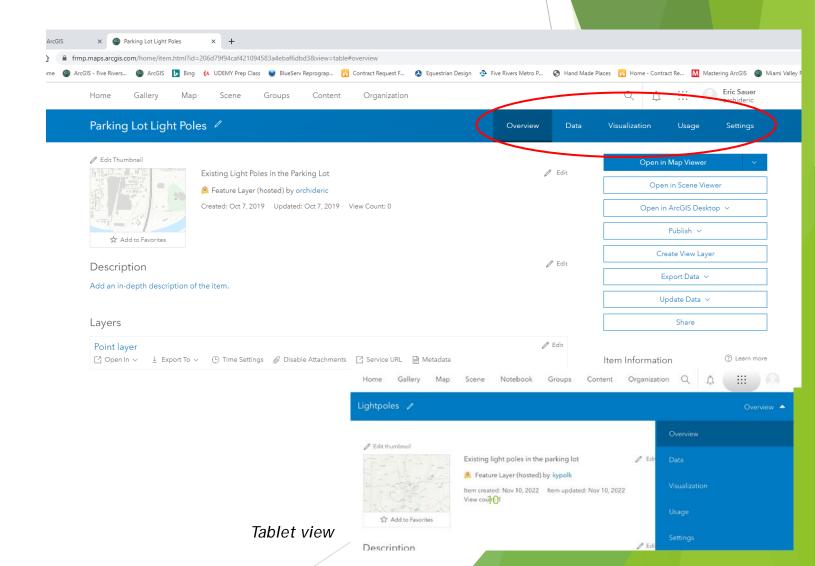


- Specify Title, Tags, Summary and Folder
 - Create a title
 - ▶ Object Name that shows in Field Maps
 - Be descriptive
 - ► Parking Lot Light Poles
 - Select Save in Folder location
 - Defaults to active folder
 - Add desired tags
 - ► Light Poles
 - ► Enter a Summary
 - ► Existing Light Poles in the Parking Lot

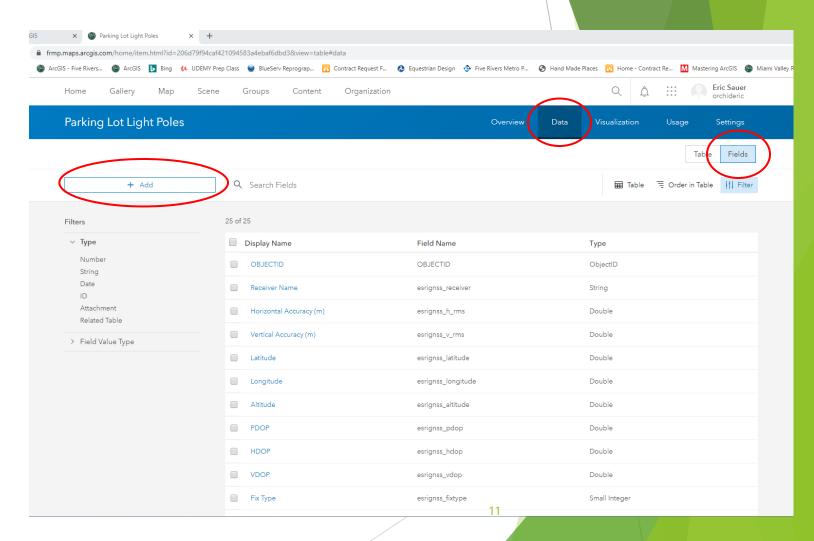


Click Save

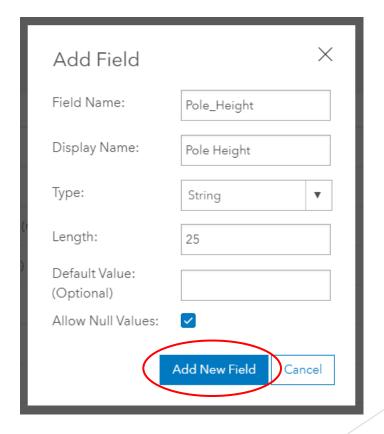
- ► Feature Layer Information
 - Overview
 - General Info about Feature Layer
 - Data
 - ► Input Fields
 - ▶ See developed program
 - Visualization
 - Will eventually show data
 - Usage
 - Collected points data
 - Setting
 - How the Feature Layer Acts



- Feature Layer Information
 - Data
 - Click Data Tab
 - Click Fields button
 - Shows all data points to be collected for each point
 - ▶ Defaults should not be changed
 - Add Data Field
 - ► Click + Add button

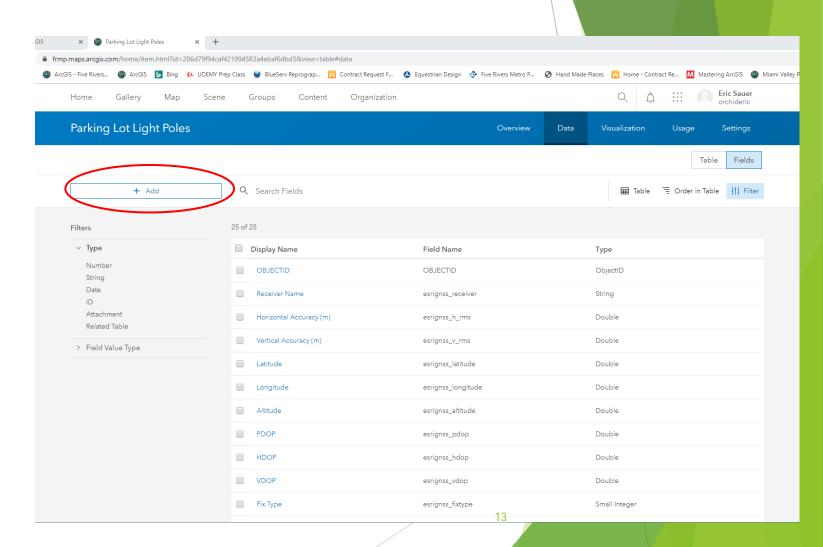


- Add Field
 - Field Name
 - Pole_Height
 - Display Name
 - ▶ Pole Height
 - Type
 - ▶ Leave as string
 - Length
 - Maximum number of characters
 - ▶ Set at 25
 - Default Value
 - ► Leave Blank
 - Allow Null Values
 - Leave Checked

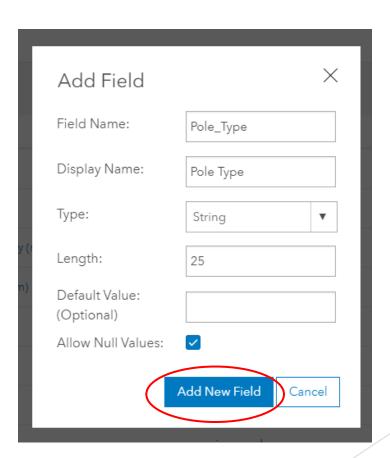


Click Add New Field Button

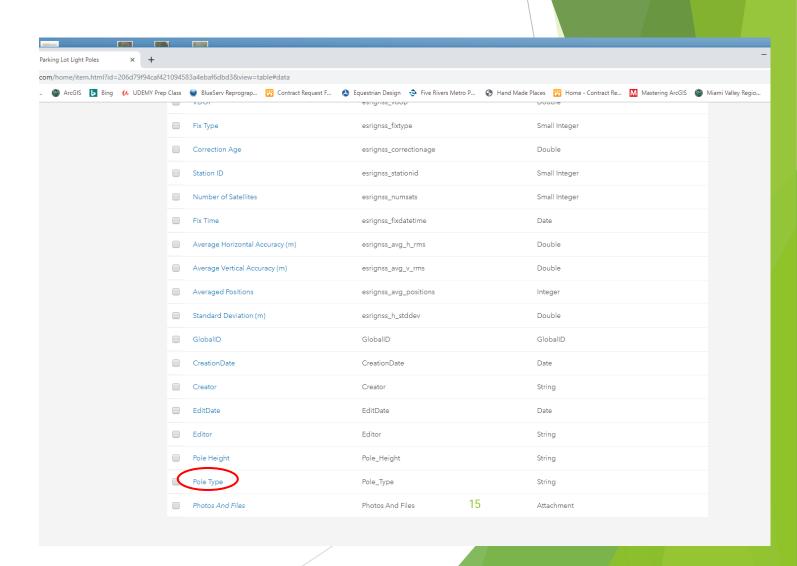
- Add Data Field
 - ► Click + Add button



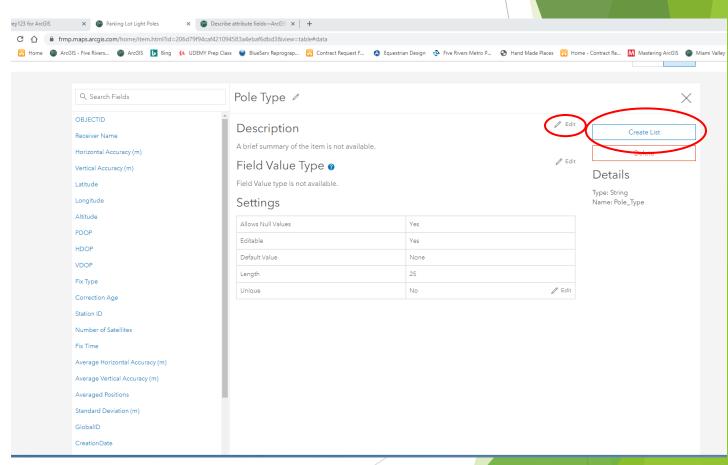
- Add Field
 - ▶ Complete Fields
 - ► Field Name
 - ► Pole Type
 - Display Name
 - Pole Type
 - Type
 - ► Leave as string
 - Length
 - ► Maximum number of characters
 - ► Set at 25
 - Default Value
 - ► Leave Blank
 - Allow Null Values
 - Leave Checked
 - Click Add New Field Button



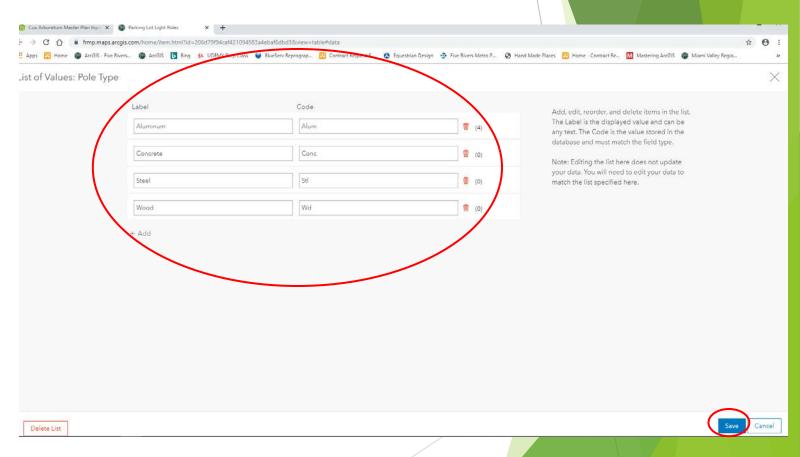
- Modify or Define Field
 - Scroll down to find Field Name
 - Pole Type
 - ► Click Pole-Type Field Name



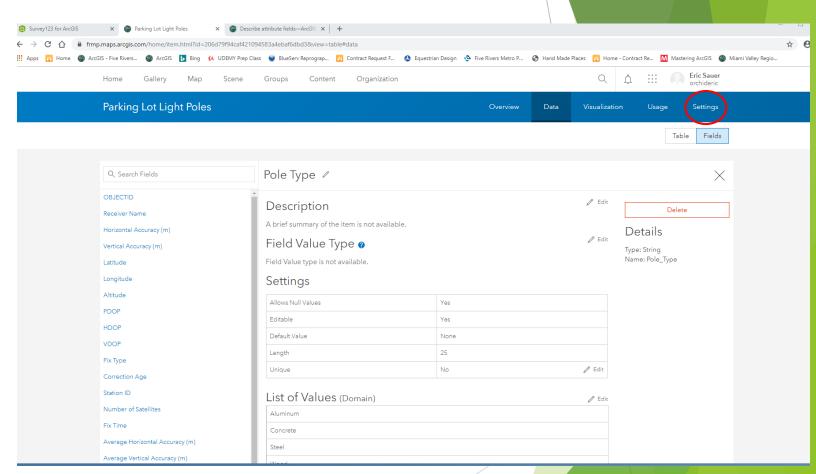
- Modify or Define Field
 - Click Edit to Re-define Field Settings
 - ▶ Define Description if desired
 - ▶ Define Field Type Value if desired
 - Descriptor type based on common characteristic
 - Click Create List
 - Create a standardized drop down menu



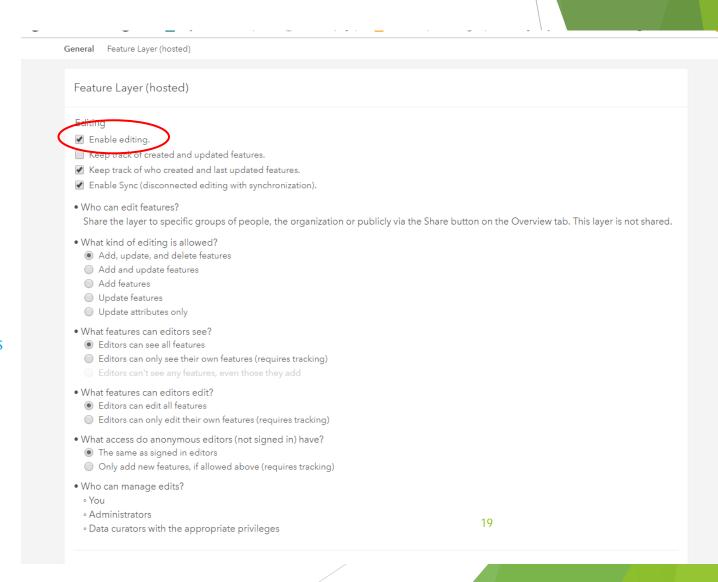
- Modify or Define Field
 - Create a Standardized drop down menu
 - Add Values. Click grey +Add button after each
 - ► Aluminum / Alum
 - ► Concrete / Conc
 - Steel / Stl
 - ► Wood / Wd
 - Code can be text or a code number
 - ► Click Save when Complete
 - Can modify later



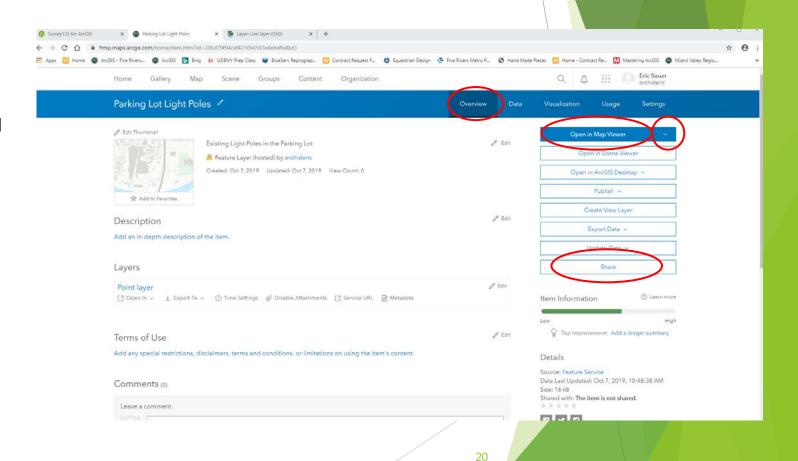
- Modify or Define Layer Settings
 - Click Settings
 - ► Set editing permissions
 - MAKE SURE TO ENABLE EDITING



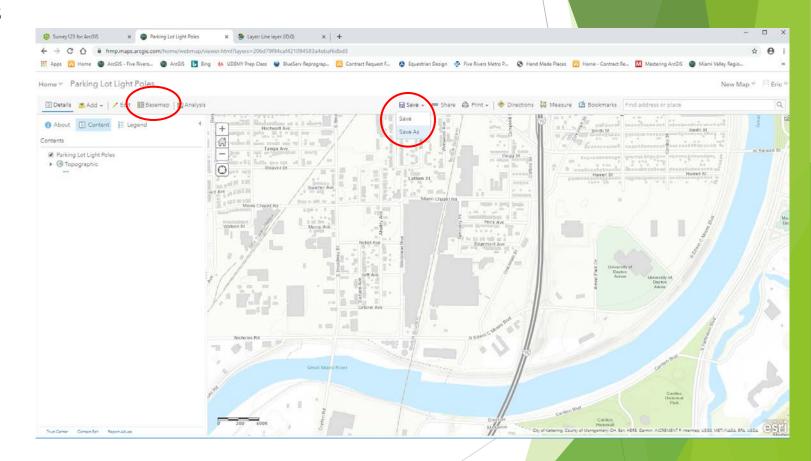
- Modify or Define Layer Settings
 - Click Settings
 - Set editing permissions
 - ► May choose Delete Protection
 - MAKE SURE ENABLE EDITING IS CHECKED
 - Decide who is allowed to do what task
 - ▶ Decide who can see which features
 - Decide who has the right to edit which features
 - ► For this exercise, leave defaults



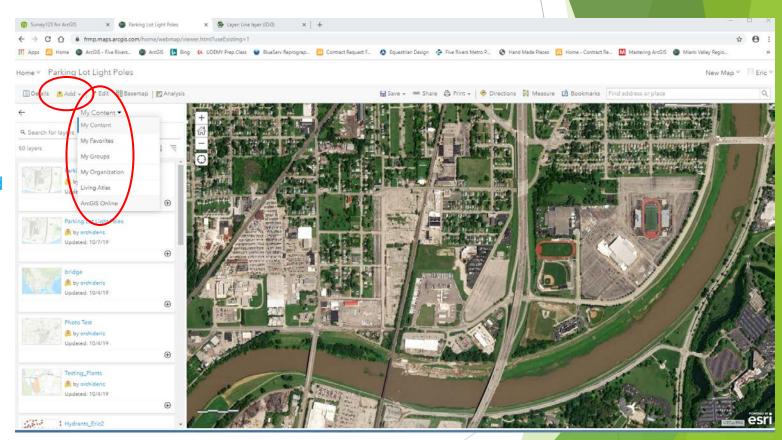
- Modify or Define Layer Settings
 - Click Overview
 - Can share the layer if desired
 - Not necessary unless others need the layer to make other maps
 - ► Click Open in Map Viewer
 - Open in Map Viewer Classic/ Classic with Full Editing
 - Ensure adding to a new map
 - Use drop down menu Add to New Map



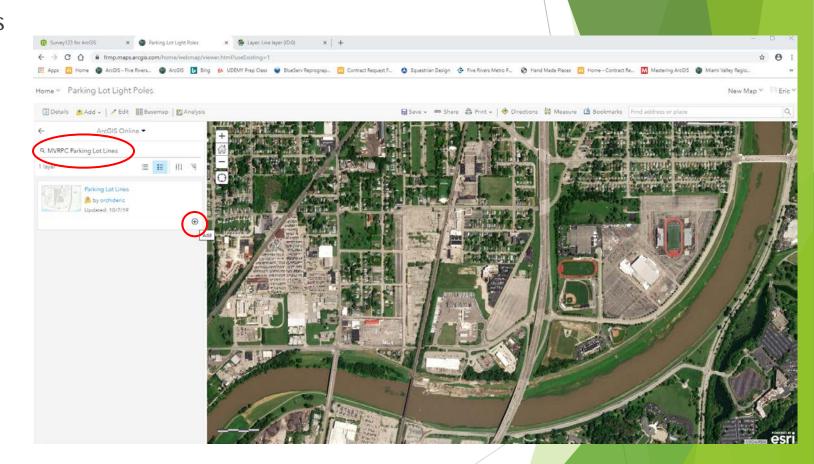
- Finalizing the Map for Field Maps
 - Save the Map
 - ► Click the Save Button Select Save As
 - ► Title: Name the Map
 - ► Tags: Enter Desired Tags
 - Summary: Add a description of Map
 - Save in folder: Select desired folder
 - Establish Map Extents
 - Change the Basemap
 - Click Basemap
 - Select Imagery
 - Click Save



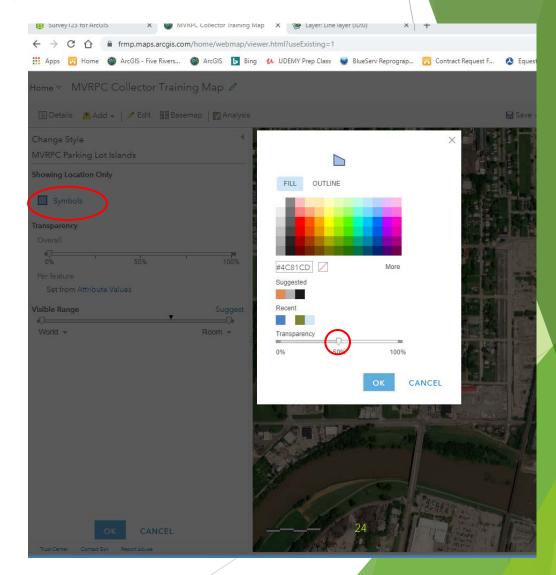
- Finalizing the Map for Field Maps
 - Add additional Layers
 - ► Click the Add button
 - ► Click Search for Layers
 - ► Click the Change My Content and select ArcGIS Online



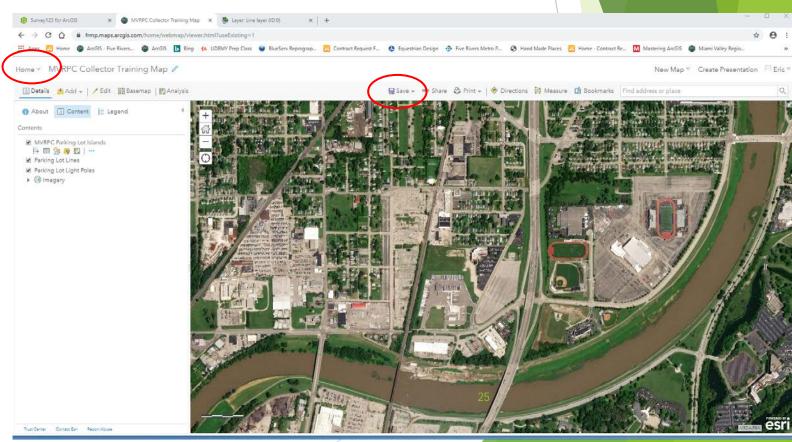
- Finalizing the Map for Field Maps
 - ► Search for the Following Layers:
 - ► MVRPC Parking Lot Lines
 - ► Add the layer to the map
 - ► MVRPC Parking Lot Islands
 - ► Add the Layer to the Map



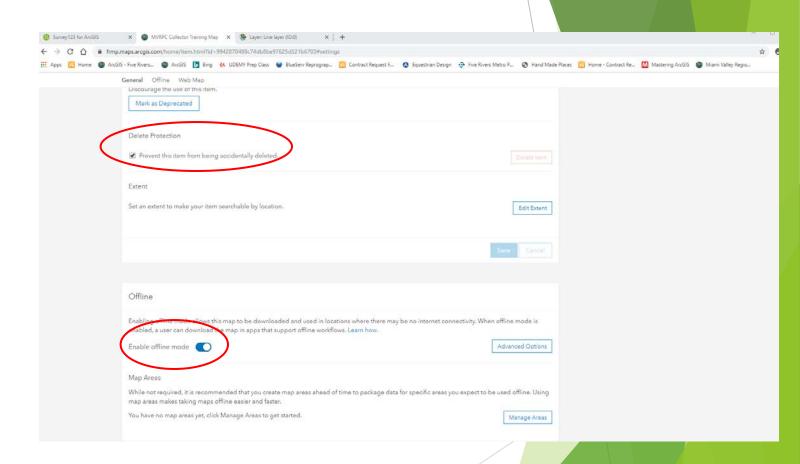
- Finalizing the Map for Field Maps
 - Set the Styles for each Layer
 - Click the Styles button on each layer
 - Select Options
 - Select Symbols
 - ► Change the symbol to a color and line width or point size/ style that will show well on the map
 - ► For the Parking Lot Islands' Layer change the transparency to 50% for the fill
 - Make sure to click OK and Done once the style has been updated



- Finalizing the Map for Field Maps
 - Save the Map
 - ► Click Save As
 - ► Call it MVRPC Field Map Training (
 - The Map is almost ready for Field Maps
 - Click Home-Content
 - Click on the Created Map to view the Overview page

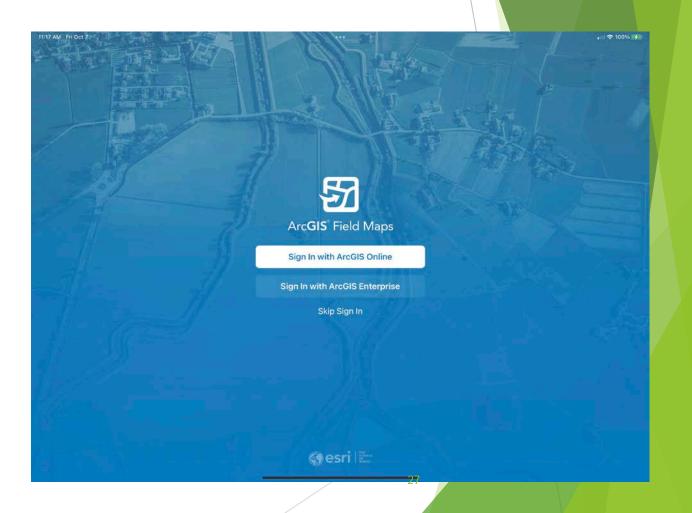


- Finalizing the Map for Field Maps
 - Click Settings
 - ► Click the Delete Protection Box
 - Leave Enable Offline Mode turned on
 - Map Areas
 - Can be used to select specific parts of a larger map area to use in an offline situation. For example, selecting a park from a county wide plan to allow for faster and easier access to specific areas to use in Field Maps
 - Click Save at the bottom of the page
 - Click Overview at the top of the page
 - Share the Map if needed
 - ▶ If the map is only being used on your own account, no need to share the map



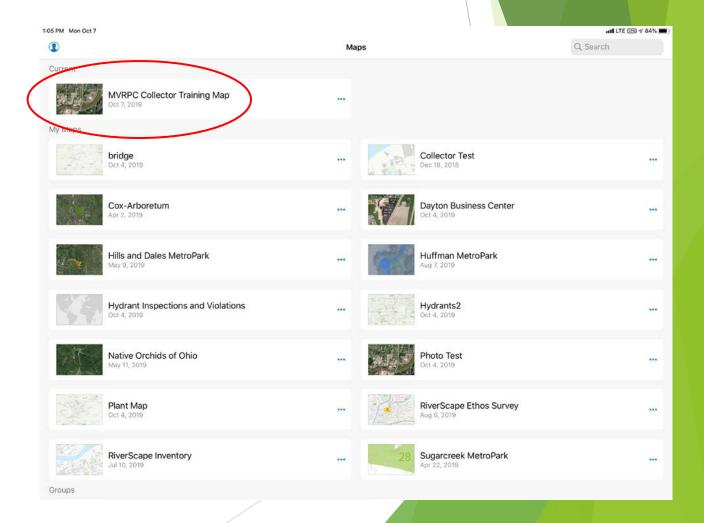


- Field Maps
 - Download Field Maps
 - ► IOS and Android
 - ► Tablet and Phone compatible
 - ► Log in Using your ArcGIS Online Account



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- Field Maps
 - All editable maps in the account will appear automatically
 - Select the map just created in ArcGIS
 Online (The name you called your map)



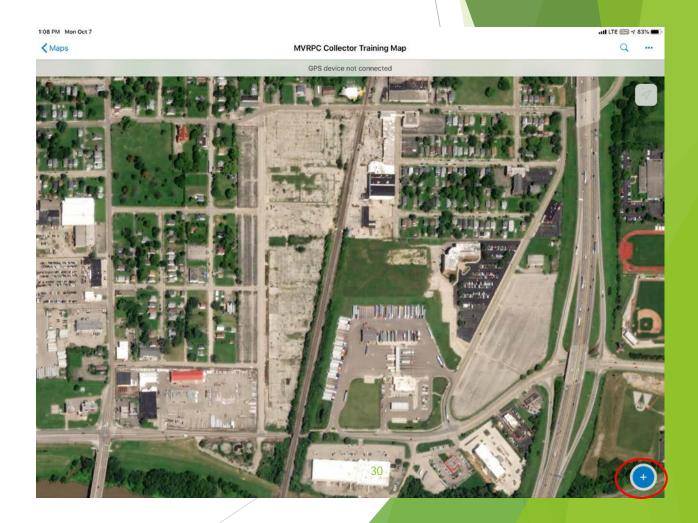


- Field Maps
 - Map should look like the one created in ArcGIS Online
 - Basic Navigation
 - Return to Maps
 - Search
 - Map Features
 - Layers
 - Bookmarks
 - Basemap
 - Measure
 - Current Position Locator
 - ► Touch Screen Navagation



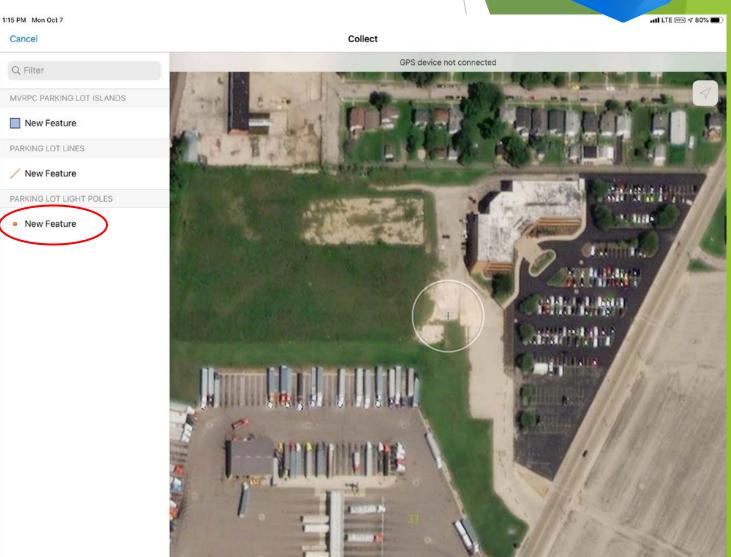
57

- Field Maps
 - Normally, this is the time to go to the collection site to use the Field Maps features.
 - For this exercise, we are going to start creating features manually to learn how to use each feature type.
 - ► Click Create the new Feature Button (Big +)



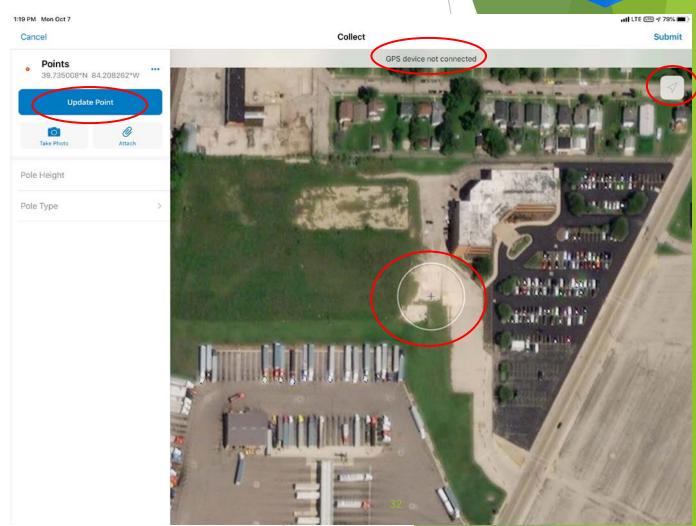
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- Field Maps
 - Create a new Point
 - ► Select New Feature under Parking Lot Light Poles



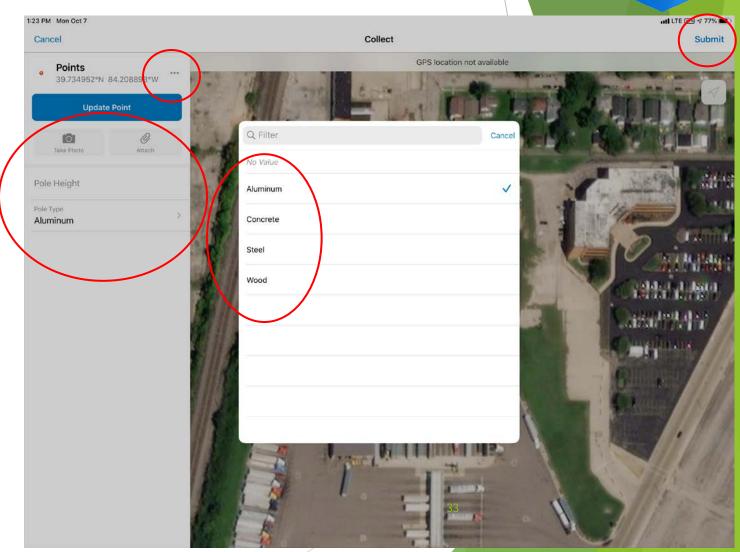


- Field Maps
 - Create a new Point
 - New Point Menu
 - Watch accuracy
 - ► Manual Entry of Points
 - Auto Location of Points
 - Scroll on the screen to select a new point location
 - Use Update Point



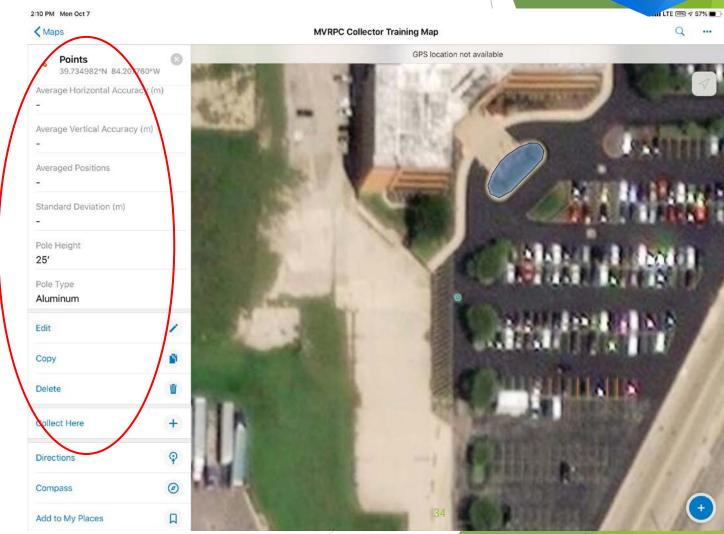


- Field Maps
 - Create a new Point
 - ▶ Fill in the form
 - ► Three Dots Menu (Undo)
 - Photo
 - Attach
 - Pole Height
 - ► Type in the height
 - Pole Type
 - ▶ Select material from menu
 - ▶ Once Form is complete Press Submit



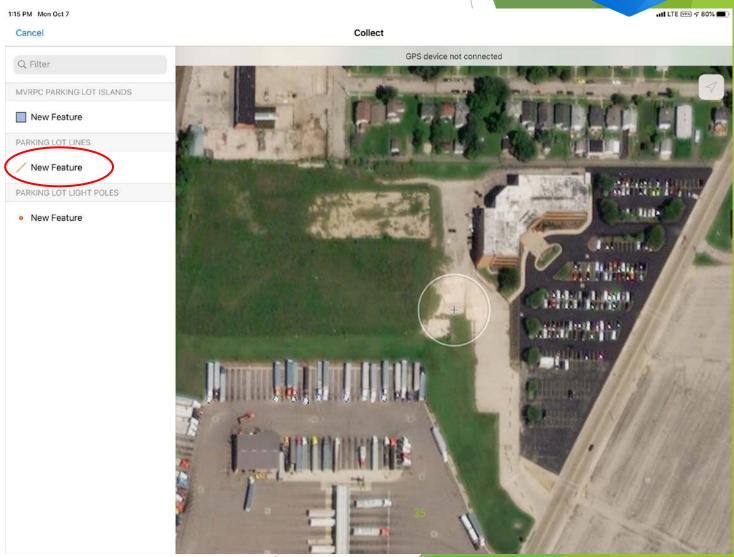


- Field Maps
 - Editing Existing Points
 - ► Select an existing point
 - Edits
 - Data
 - Update point location
 - Copy
 - Delete
 - Collect here



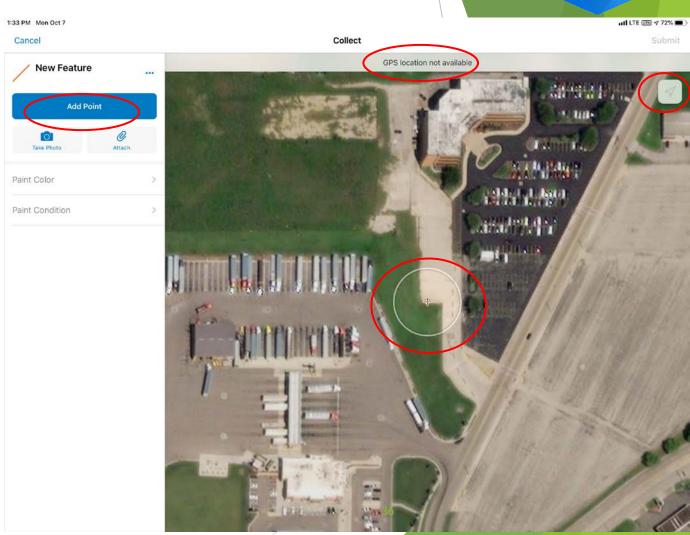
57

- Field Maps
 - Create a new Line
 - ► Click the Create a new feature button (large + on the map) to create a new feature
 - ► Select New Feature under Parking Lot Lines



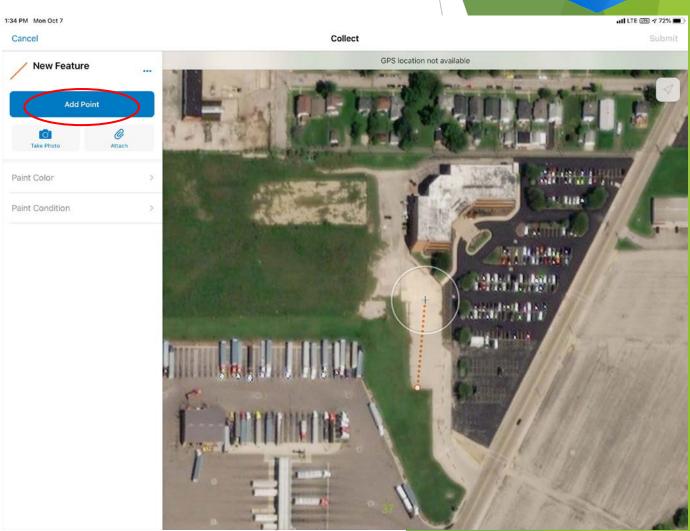


- Field Maps
 - Create a new Line
 - ▶ New Line Menu
 - Watch accuracy
 - ▶ Line can be multi-segmented
 - Manual Entry of Points in the line
 - Auto Location of Points in the line
 - Use Update Point from the 3 dot menu to correct initial or selected points
 - ▶ Select first point on the line
 - By GPS location in the field
 - Manually by scrolling on the map
 - Can update first point- 3 dot menu-Update Selected Point



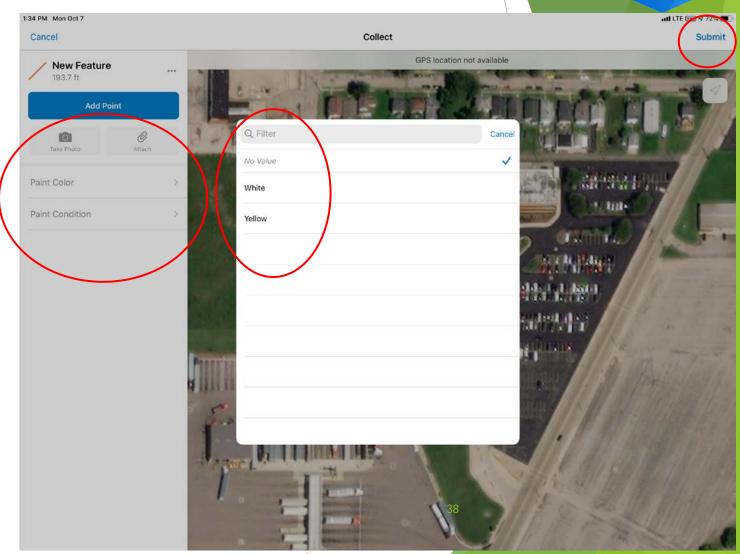


- Field Maps
 - Create a new Line
 - ► Select additional point(s) on the line
 - By GPS location in the field
 - Manually by scrolling on the map
 - Click Add Point at each desired location
 - ▶ 3- dot menu- Undo, Redo, Update, Delete



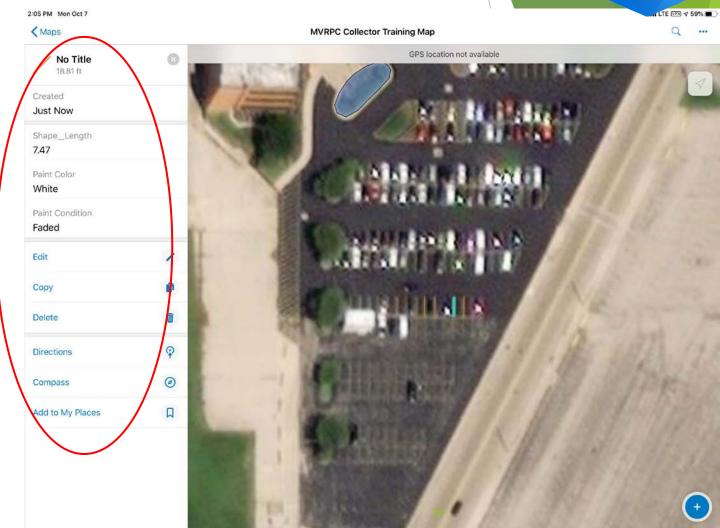


- Field Maps
 - Create a new Line
 - ▶ Fill in the form
 - Photo
 - Attach
 - Paint Color
 - Select from pop up menu
 - ▶ Paint Condition
 - Select material from menu
 - ▶ Once Form is complete Press Submit

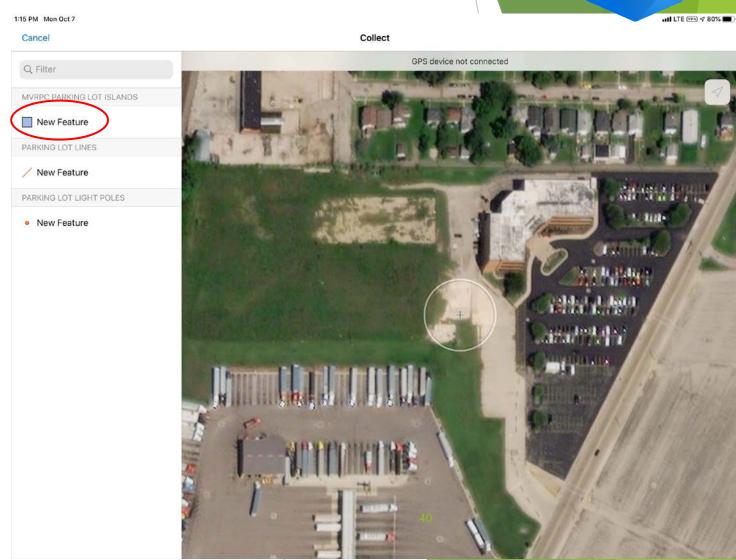




- Field Maps
 - Create a new Line
 - ► Select an existing line
 - Completed Line
 - Edits
 - Data
 - ▶ Same options as a Point

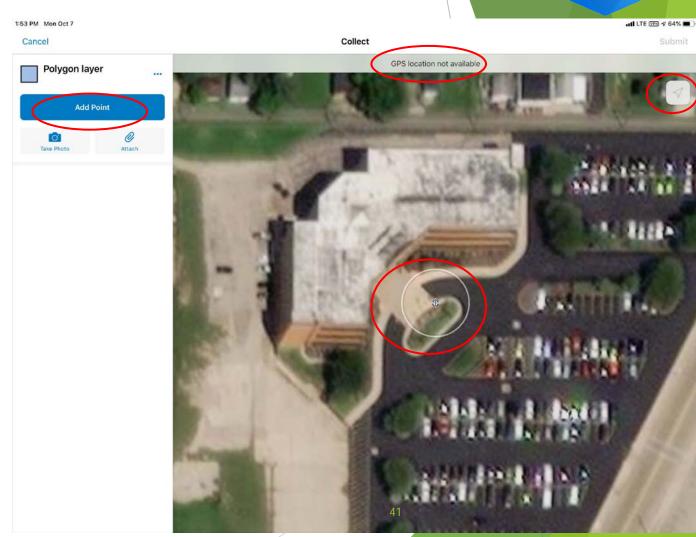


- Field Maps
 - Create a new Polygon
 - ► Click the create a new feature button (large + on the map) to activate a new feature
 - Select New Feature under MVRPC Parking Lot Islands



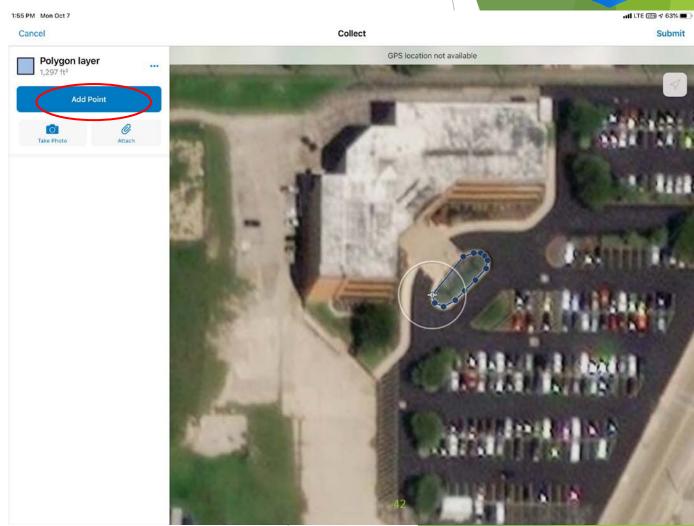


- Field Maps
 - Create a new Polygon
 - ► New Polygon Menu
 - Watch accuracy
 - ▶ Polygon can be multi-segmented
 - Manual Entry of Points in the Polygon
 - Auto Location of Points in the Polygon
 - Use Update Point from the 3 dot menu to correct initial or selected points
 - ▶ Select first point on the line
 - By GPS location in the field
 - Manually by scrolling on the map



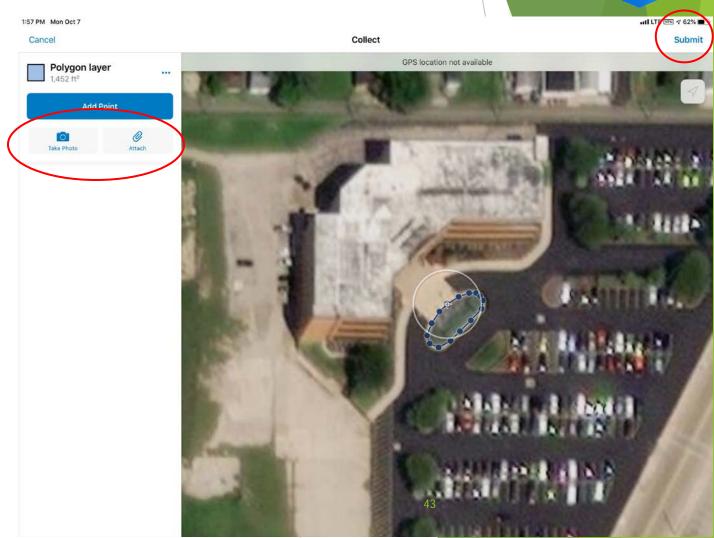


- Field Maps
 - Create a new Polygon
 - ► Select additional points on the Polygon
 - By GPS location in the field
 - Manually by scrolling on the map
 - Click Add Point at each desired location





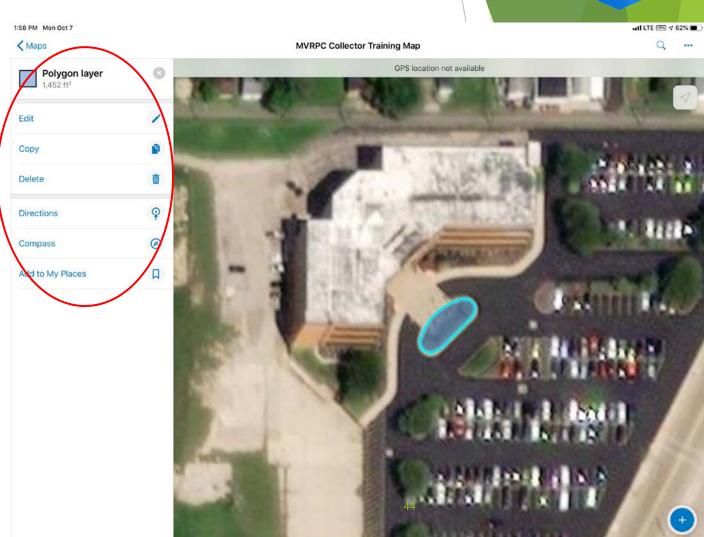
- Field Maps
 - Create a new Polygon
 - ▶ Fill in the form
 - Photo
 - Attach
 - ▶ Once Form is complete Press Submit





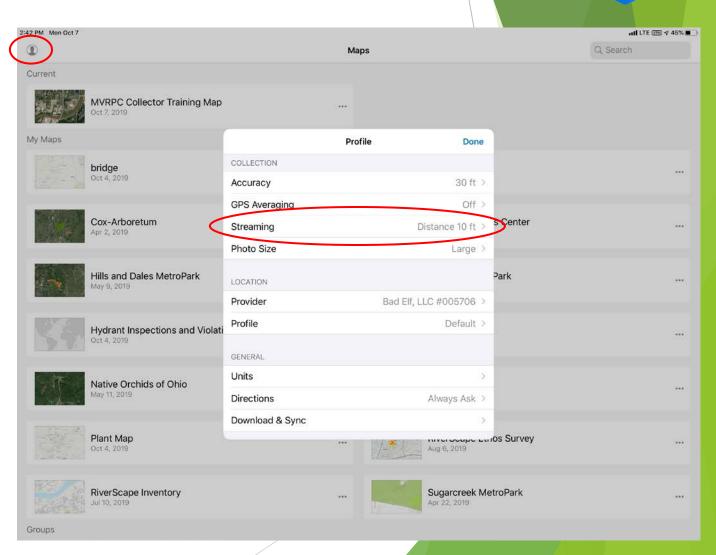
- Field Maps
 - Create a new Polygon
 - ► Select an existing Polygon
 - ► Completed Polygon
 - Edits
 - Data
 - Similar edits as point and line

► Click Maps to return to main screen



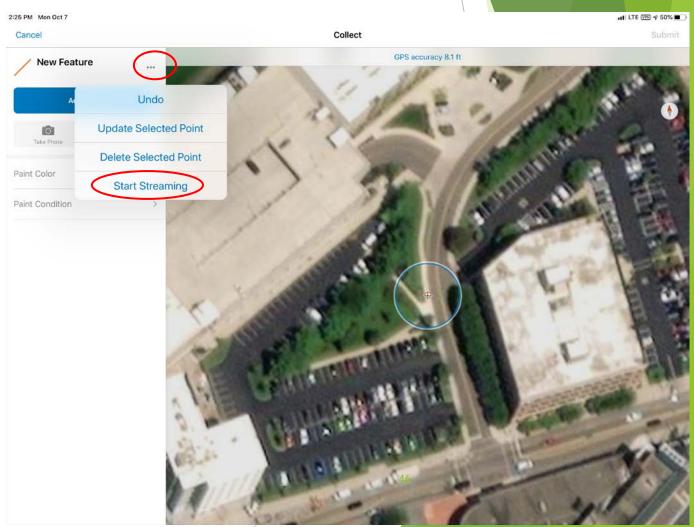


- Field Maps
 - Create new Lines or Polygons using Streaming
 - ► Field Maps Settings
 - ► Click setting menu
 - ► Click Streaming
 - ▶ Set by time or distance



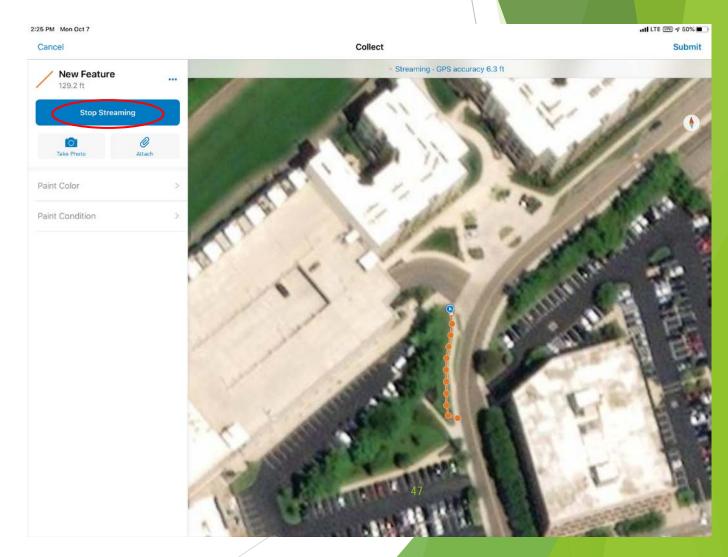


- Field Maps
 - Create new Lines or Polygons using Streaming
 - One feature at a time while active
 - Allow GPS location to set on point of beginning
 - ► Click the 3 dot menu
 - ► Click Start Streaming
 - ► Walk along desired trace path



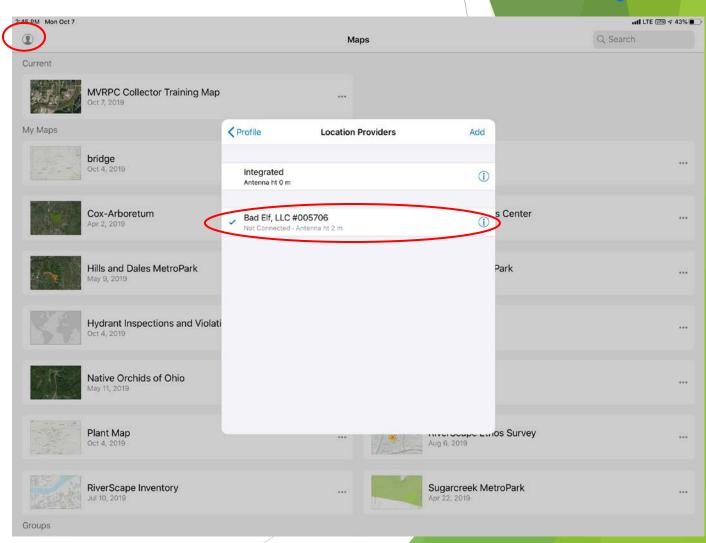


- Field Maps
 - Create new Lines or Polygons using Streaming
 - Once back at the point of beginning for polygons or end point for lines, press stop streaming
 - ► Complete any menu input
 - Press submit
 - Can edit features





- Field Maps
 - Field Work
 - Using External GPS Devices
 - Improve Accuracy
 - Multiple devices on same signal
 - Connecting
 - Click <Maps</p>
 - ► Click the Setting Icon
 - ► Click Streaming
 - ▶ Distance or Time Click Distance
 - ► Click < Profile to return to menu
 - Click Provider
 - Integrated
 - External Device





Add On External Equipment



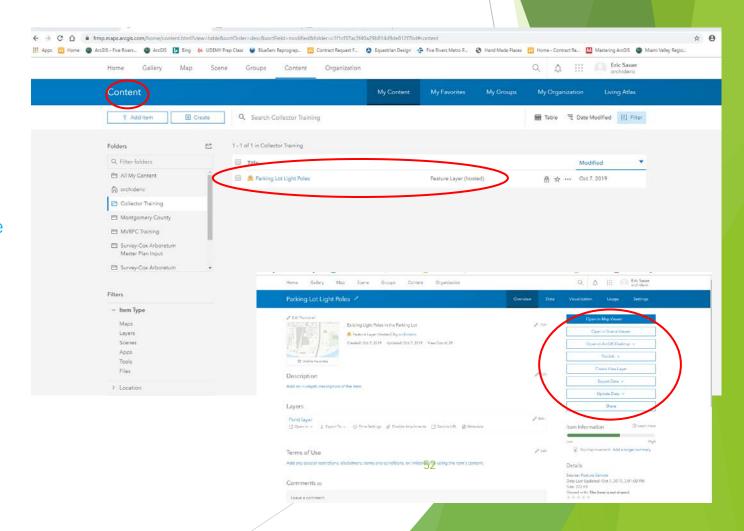
- ► Go Out and Collect!
- Click on the Collect Map File to get started!
- Try collecting points first Get comfortable with the App
- ► Lines and Polygons are similar- Try if you like



- Welcome Back!
- ► Any Issues with collecting or creating data?
- Questions?

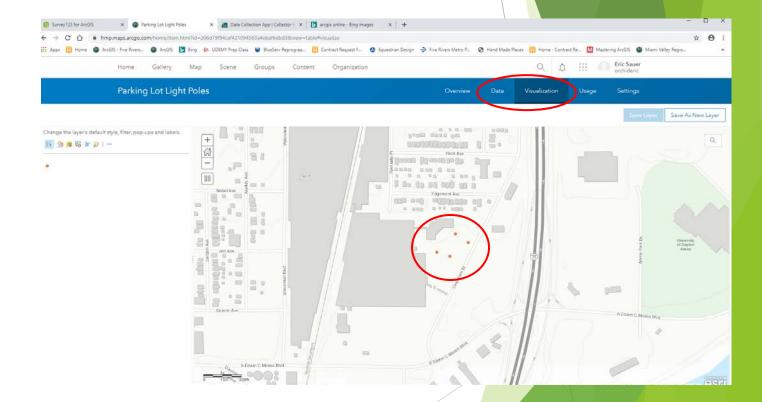


- Field Maps Data in ArcGIS Online
 - ArcGIS Online
 - ▶ Log back into Online account
 - ▶ Navigate to My Content
 - Navigate to the Folder created for this training class
 - ► Click on the Parking Lot Light Poles File
 - Screen opens to Overview
 - Data can be shared
 - Data can be exported





- Field Maps Data in ArcGIS Online
 - ArcGIS Online
 - ► Click Data tab
 - Shows each collected feature
 - ► Click Visualization tab
 - Shows each feature on map



Questions?

Eric Sauer, RLA (Eric.Sauer@metroparks.org)

Five Rivers MetroParks

Tom Harner, GISP (tharner@mvrpc.org)

MVRPC







