

Arc GIS Online— Data Collection ESRI Field Maps



Doug Kotnik

Precision Laser & Instrument, Inc

Eric Sauer, RLA

Five Rivers MetroParks

Tom Harner, GISP

MVRPC



1

November 2022

Agenda

- ▶ Introductions & ArcGIS Online Refresher *(1:00 - 1:15)*
- ▶ ArcGIS Field Maps *(1:15 - 3:00)*
 - ▶ 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
- ▶ Inspections in Field Maps *(3:10 - 4:30)*
 - ▶ Creating Inspection Tables
 - ▶ Creating Tracking Layers

ArcGIS Online

- Content page - where you can Create and Access your items

The screenshot displays the ArcGIS Online Content page. At the top, a navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content (which is the active tab), and Organization. To the right of these links are icons for search, notifications, a user profile (Eric Sauer, orchideric), and a menu icon. Below the navigation bar is a secondary blue bar with links for Content, My Content, My Favorites, My Groups, My Organization, and Living Atlas. A red circle highlights the 'New item' button in the top left of the main content area, next to the 'Create app' button. Below these buttons is a search bar containing the text 'Search 2022 Field Map Training'. To the right of the search bar are icons for 'Table', 'Date Modified', and 'Filter'. The main content area is divided into two sections. On the left is a 'Folders' sidebar with a search bar and a list of folders: 'All My Content', 'orchideric', '2022 Field Map Training' (which is selected and highlighted), '2022 Restrooms', 'CHM', 'Collector Training', and 'District Wide Trail Master Plan'. Below the folders is a 'Filters' section with a dropdown for 'Item type' and a list of item types: Maps, Layers, Scenes, Apps, Tools, Files, Insights, and Notebooks. The main content area on the right features a large icon of a document with a checkmark and the text 'Drag and drop your content here.' Below this text is a smaller line of text: 'You can also click **New item** to upload a file, link a service, and create an item; or click **Create app** to build a web app.'

ArcGIS Online

- Item page
- Opening
- Sharing

The screenshot displays the ArcGIS Online interface. At the top, a navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. A search bar and user profile (Eric Sauer, orchideric) are on the right. Below this, a secondary navigation bar shows tabs for Overview, Data, Visualization, Usage, and Settings. The main content area is titled 'M Parking Lot Light Poles' and includes a map thumbnail, a description, layers, terms of use, and comments. A 'Share' dialog box is open in the center, showing sharing options. On the right side of the item page, there is a vertical menu with buttons for 'Open in Map Viewer', 'Open in Scene Viewer', 'Open in ArcGIS Desktop', 'Publish', 'Create View Layer', 'Export Data', 'Update Data', and 'Share'. The 'Open in Map Viewer' and 'Share' buttons are circled in red. Below this menu is the 'Item Information' section with a progress bar and a 'Details' section with metadata.

Home Gallery Map Scene Groups Content Organization

M Parking Lot Light Poles

Overview Data Visualization Usage Settings

Edit thumbnail

Existing Light Poles in the Parking Lot

Feature Layer (hosted) by orchideric

Created: Oct 18, 2019 Updated: Oct 18, 2019 View Count: 21

Add to Favorites

Description

Add an in-depth description of the item.

Layers

Point layer

Terms of Use

Add any special restrictions, disclaimers, terms and conditions, or limitations.

Comments (0)

Leave a comment.

Share

Set sharing level

Owner
Owner of the item(s) has access

Organization
All members of your organization have access

Everyone (public)
People outside your organization have access

Set group sharing

None yet

Edit group sharing

Save Cancel

Open in Map Viewer

Open in Scene Viewer

Open in ArcGIS Desktop

Publish

Create View Layer

Export Data

Update Data

Share

Item Information

Learn more

Low High

Top Improvement: Add a longer summary

Details

Source: Feature Service

Data Last Updated: Oct 18, 2019, 10:22 AM

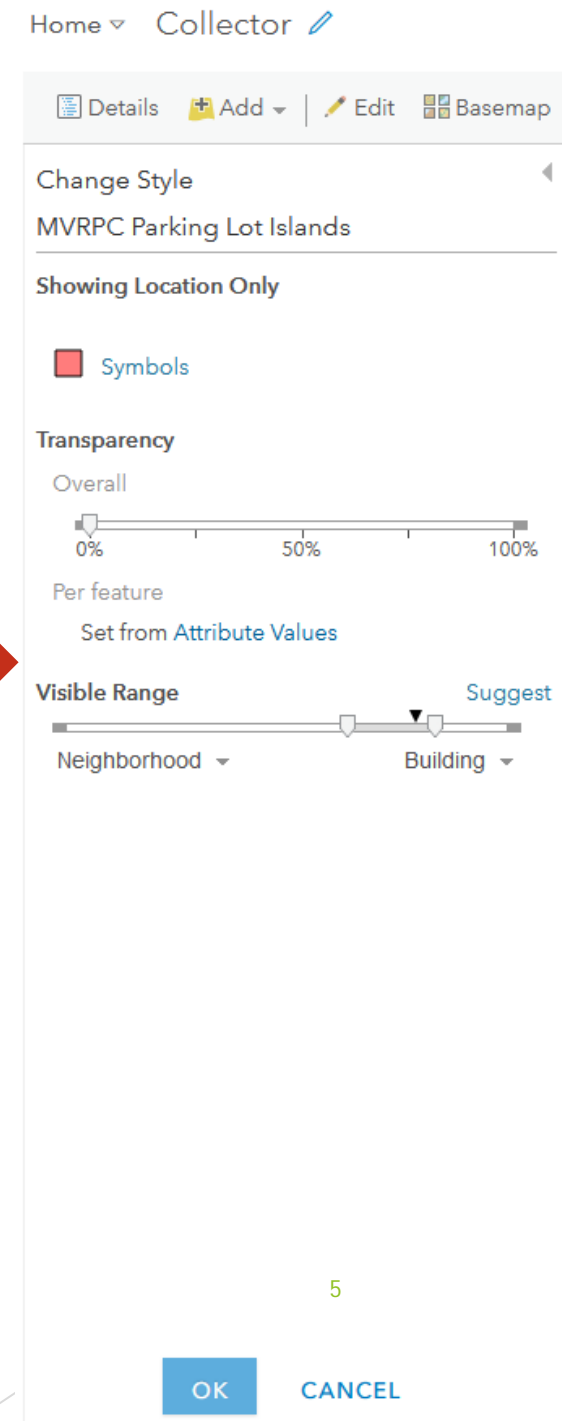
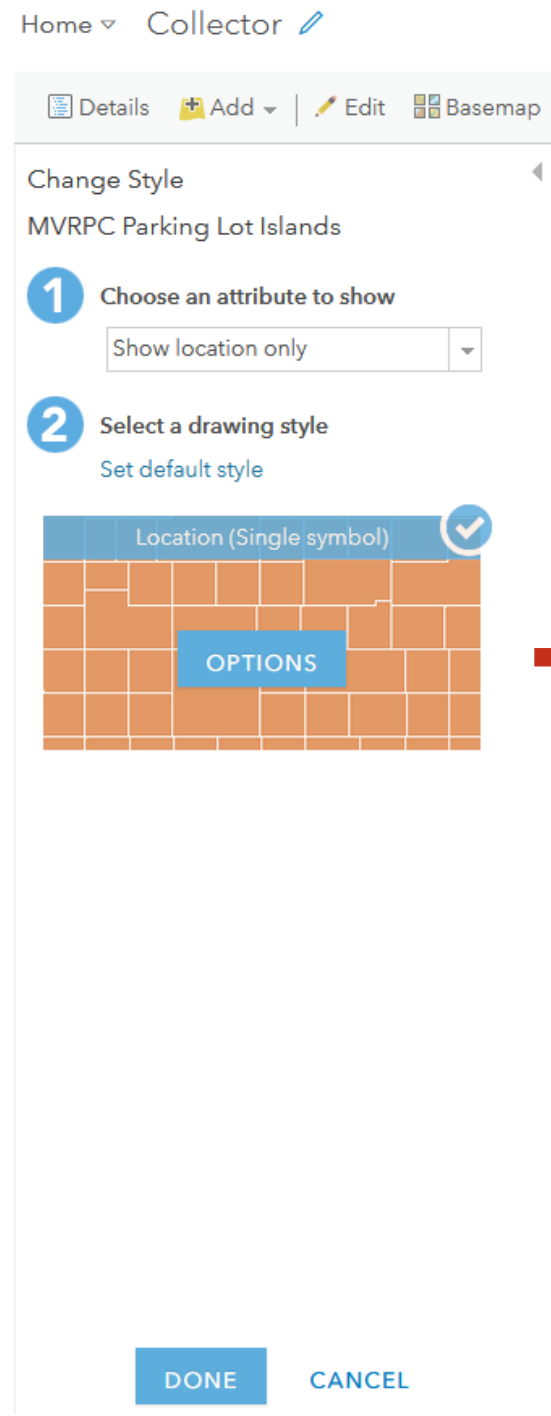
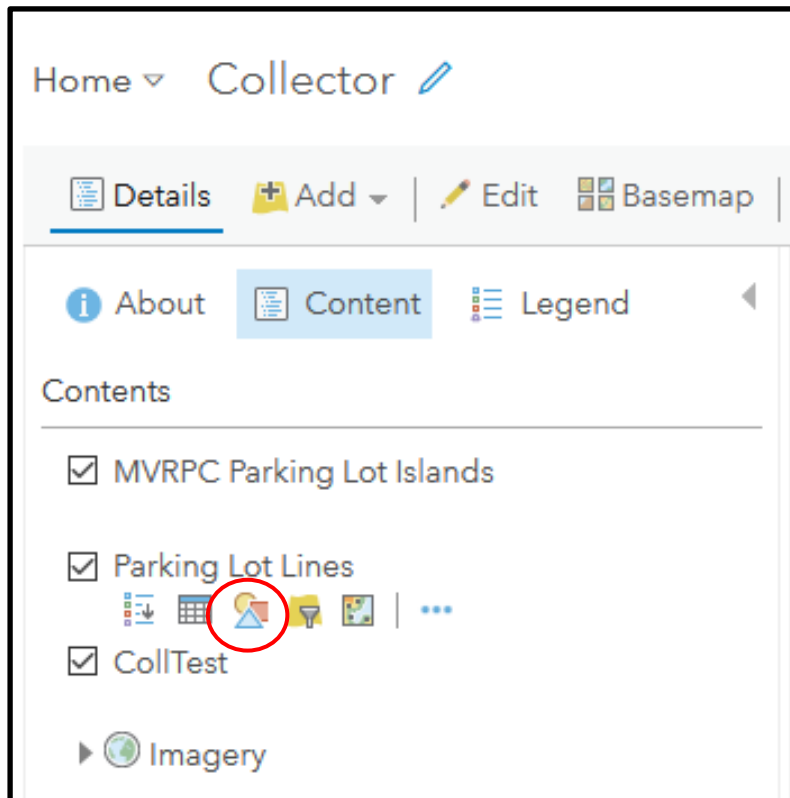
Size: 464 KB

Attachments Size: 418 KB

★★★★★

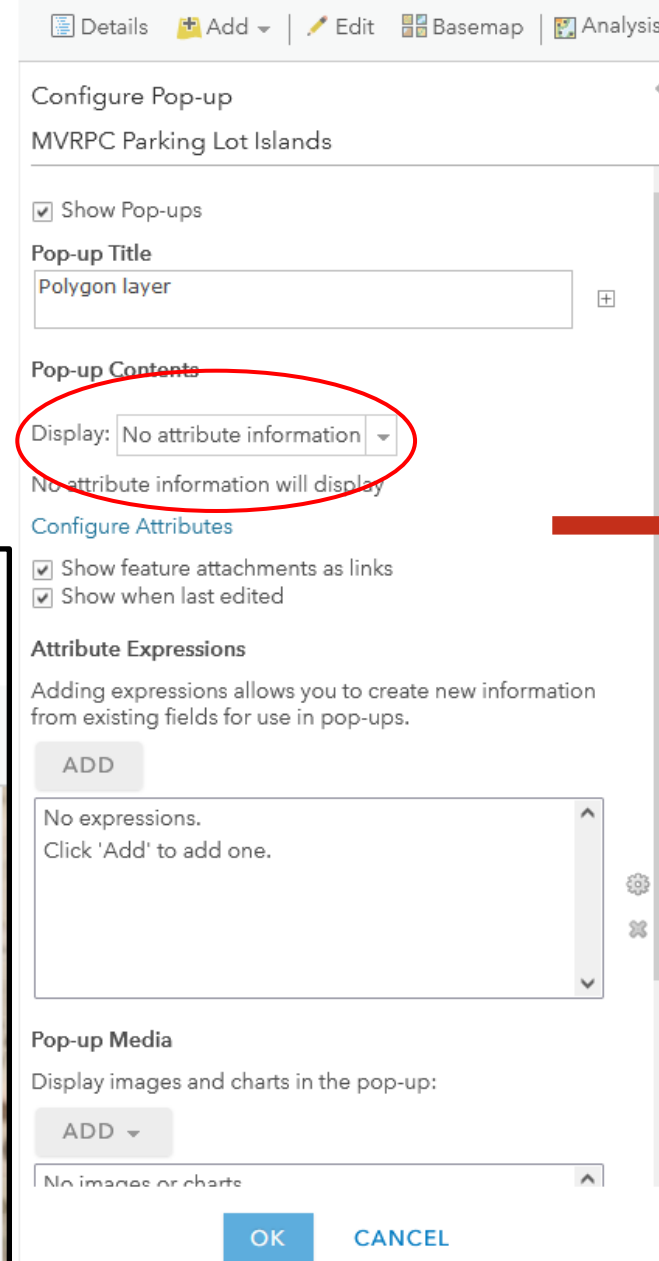
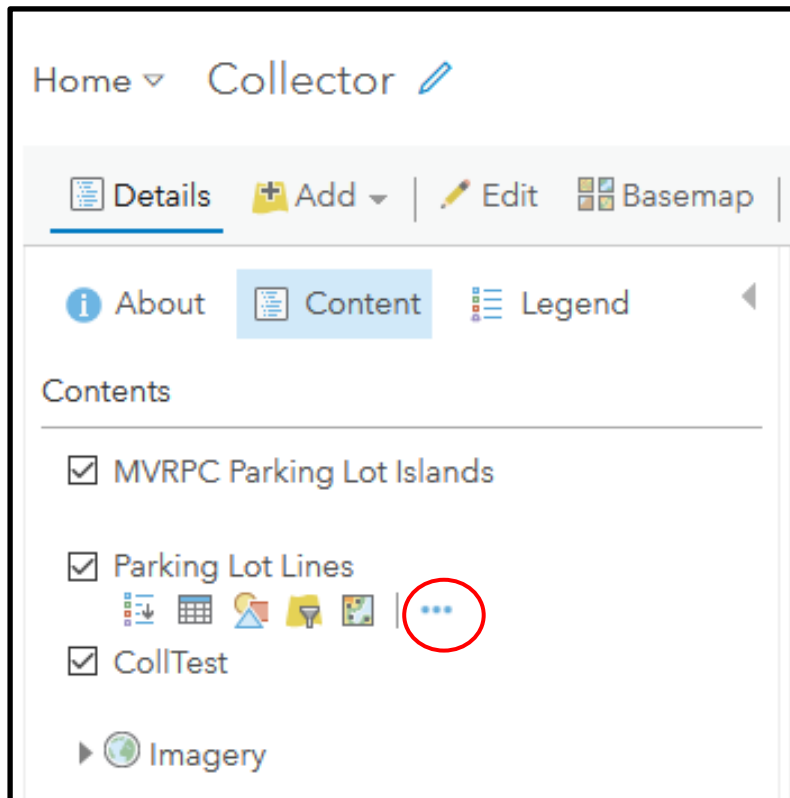
ArcGIS Online

- In the map - Table of contents
- Changing the Style of features



ArcGIS Online

- In the map - pop ups
- Configuring pop ups



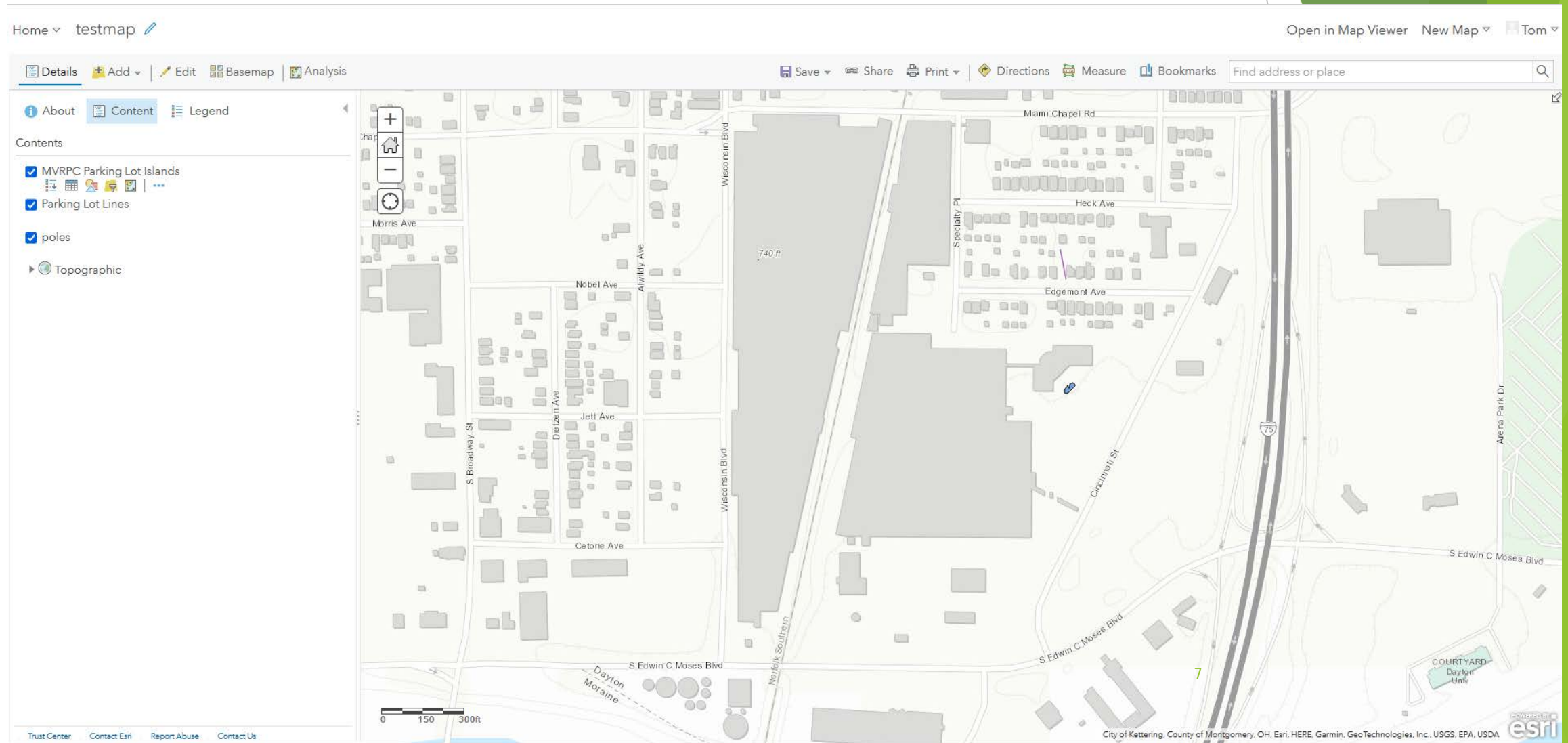
Configure Attributes

Check the fields you want to display and edit. Select a field to change its alias, order it, and format it.

<input type="checkbox"/> Display	<input type="checkbox"/> Edit	Field Name	Field Alias
<input type="checkbox"/>	<input type="checkbox"/>	{OBJECTID}	OBJECTID
<input type="checkbox"/>	<input type="checkbox"/>	{GlobalID}	GlobalID
<input type="checkbox"/>	<input type="checkbox"/>	{Shape__Area}	Shape__Area
<input type="checkbox"/>	<input type="checkbox"/>	{Shape__Length}	Shape__Length
<input type="checkbox"/>	<input type="checkbox"/>	{CreationDate}	CreationDate
<input type="checkbox"/>	<input type="checkbox"/>	{Creator}	Creator

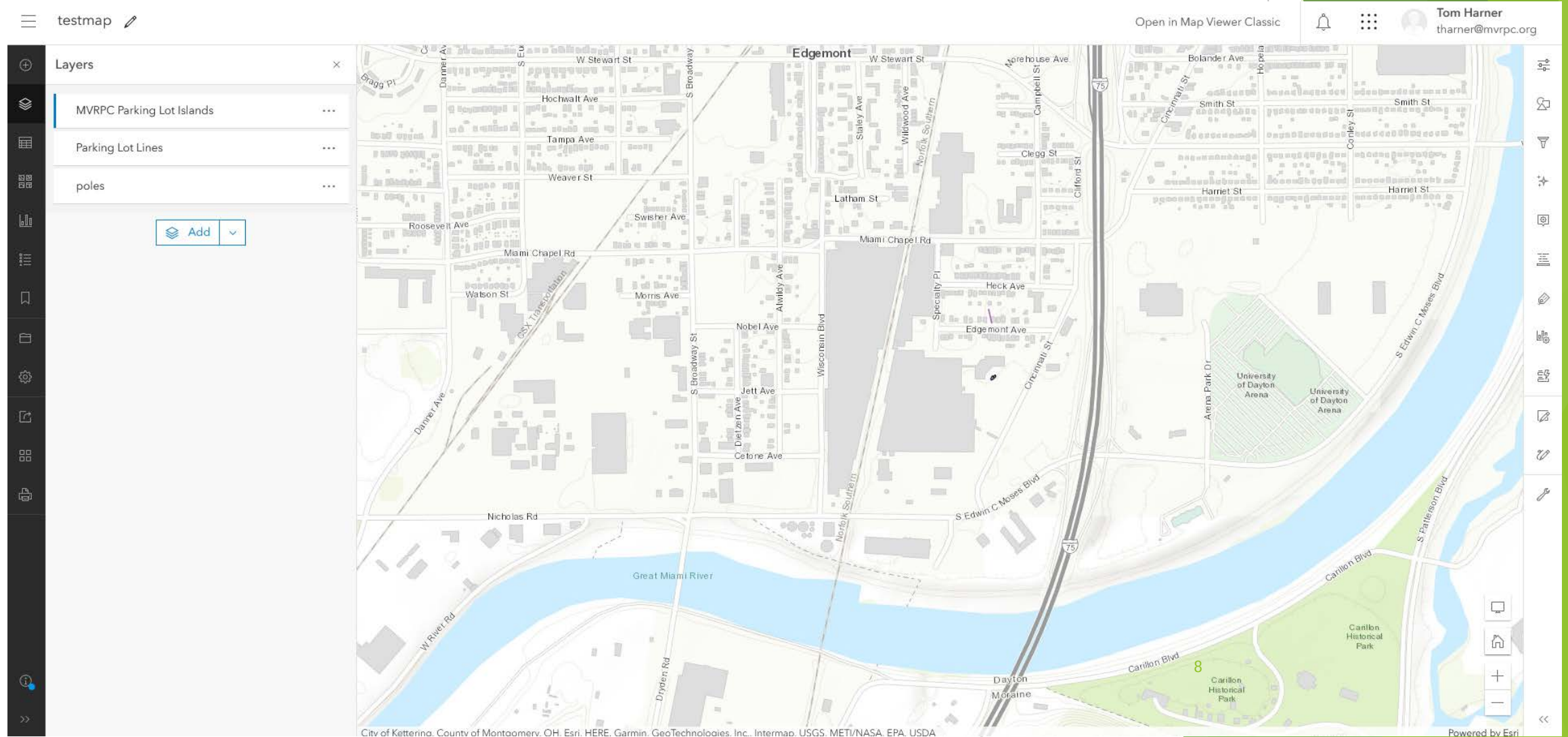
ArcGIS Online

- 'Map Viewer Classic' or the 'Old Map Viewer'



ArcGIS Online

► 'Map Viewer' or the 'New' Map Viewer



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

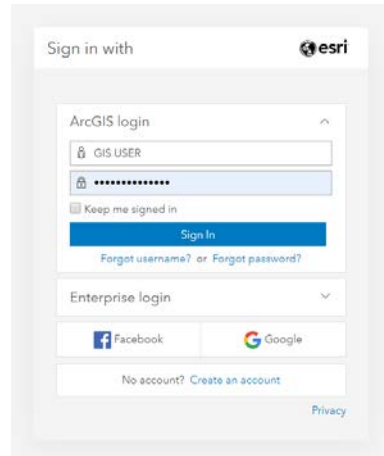


Establish the Program

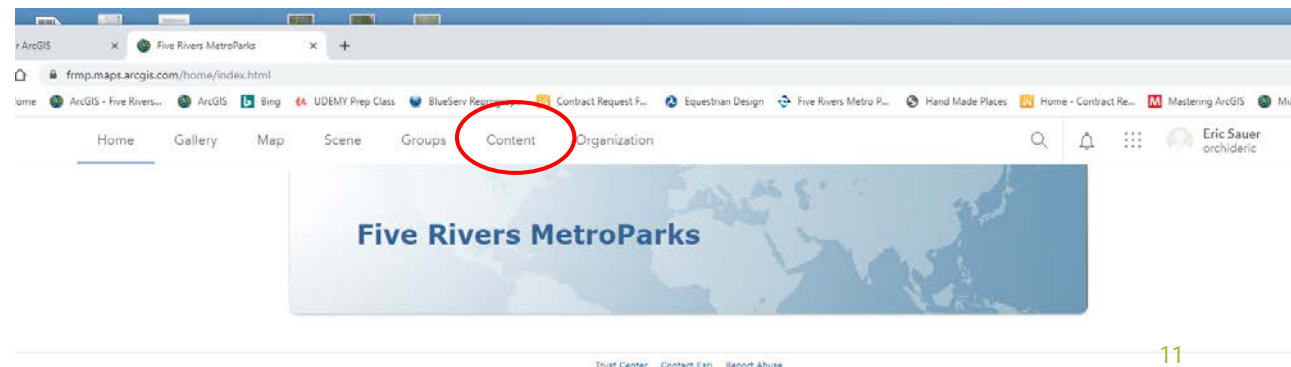
- ▶ What type of data needs to be collected
 - ▶ Points
 - ▶ Lines
 - ▶ Polygons
- ▶ What specific data for each data point is required
 - ▶ Date/ time collected/ user
 - ▶ Identifiers (Owner, name, ID Number), size, type, age, material, condition
 - ▶ Photo
 - ▶ **Standardization of entries** (drop 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

Building a Field Maps Map - ArcGIS Online

- ▶ Sign Into ArcGIS Online-
 - ▶ Search for ArcGIS Online
 - or
 - ▶ www.arcgis.com

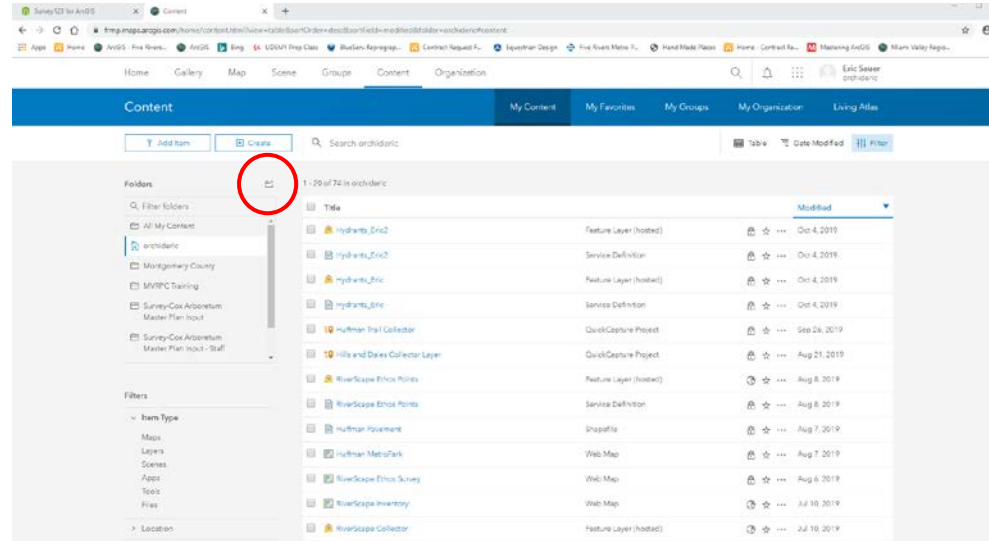


- ▶ User Home Page
 - ▶ Click on Content

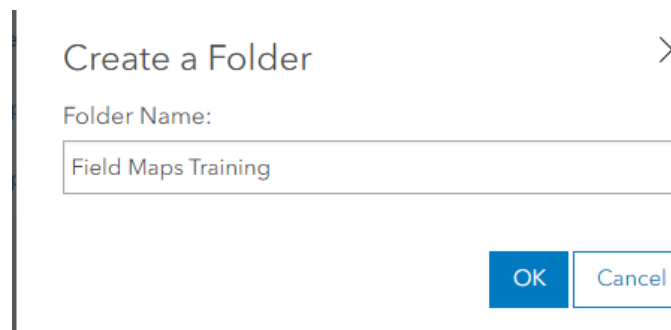


Building a Field Maps Map - ArcGIS Online

- ▶ 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



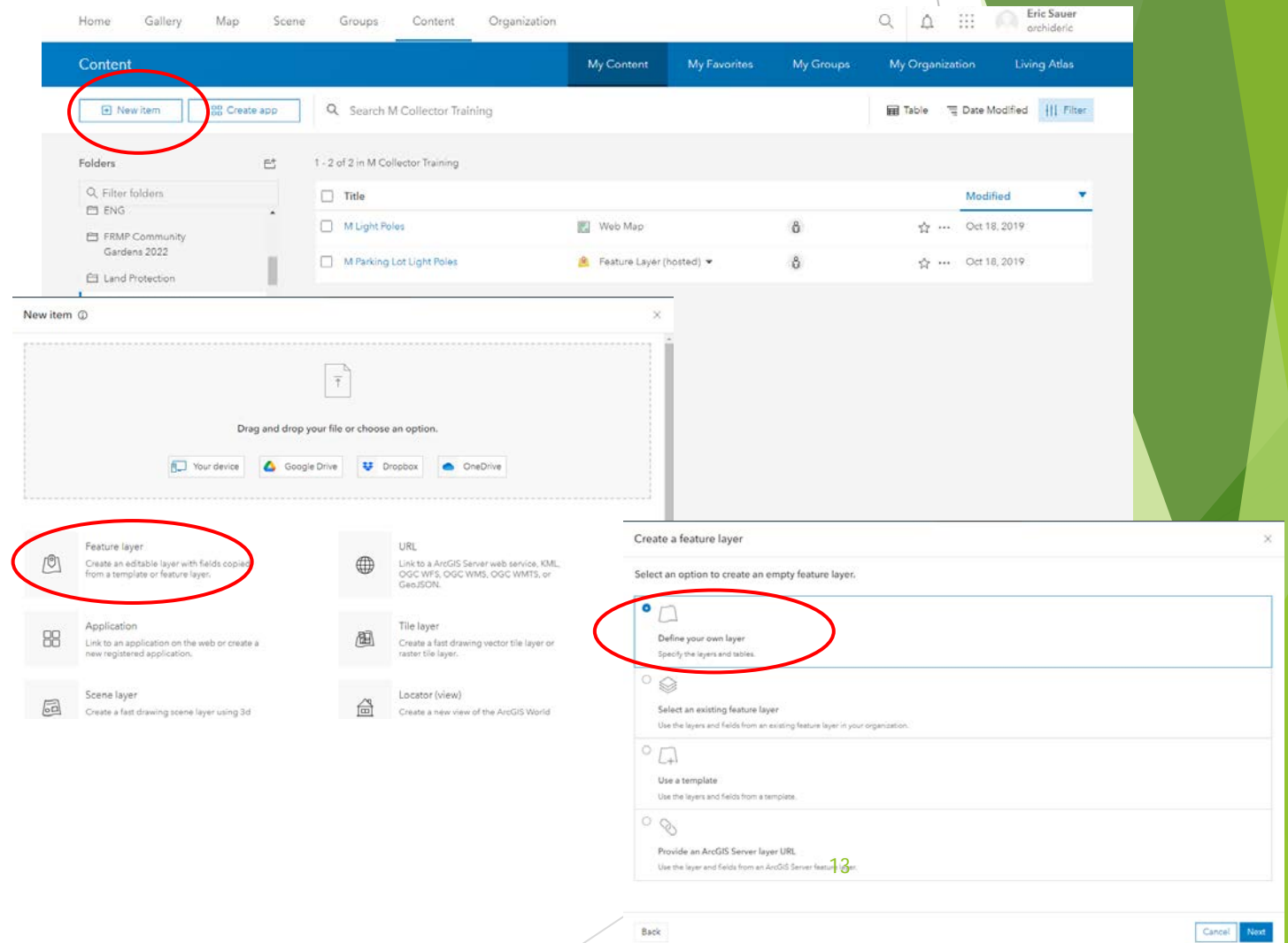
Building a Field Maps Map - ArcGIS Online

► 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](#)



Building a Field Maps Map - ArcGIS Online

- ▶ 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

Create a feature layer

Specify name and type

Layer_1 Point layer

+ Add

Options

Add GPS metadata fields
Add fields to layers that support capturing GPS receiver information.

Enable Z-values
Allows modeling point, polyline, and polygon features in 3D.

Back Cancel Next

NOTE: Can add Points, Lines and Polygons to the same feature layer if desired

Building a Field Maps Map - ArcGIS Online

- ▶ 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

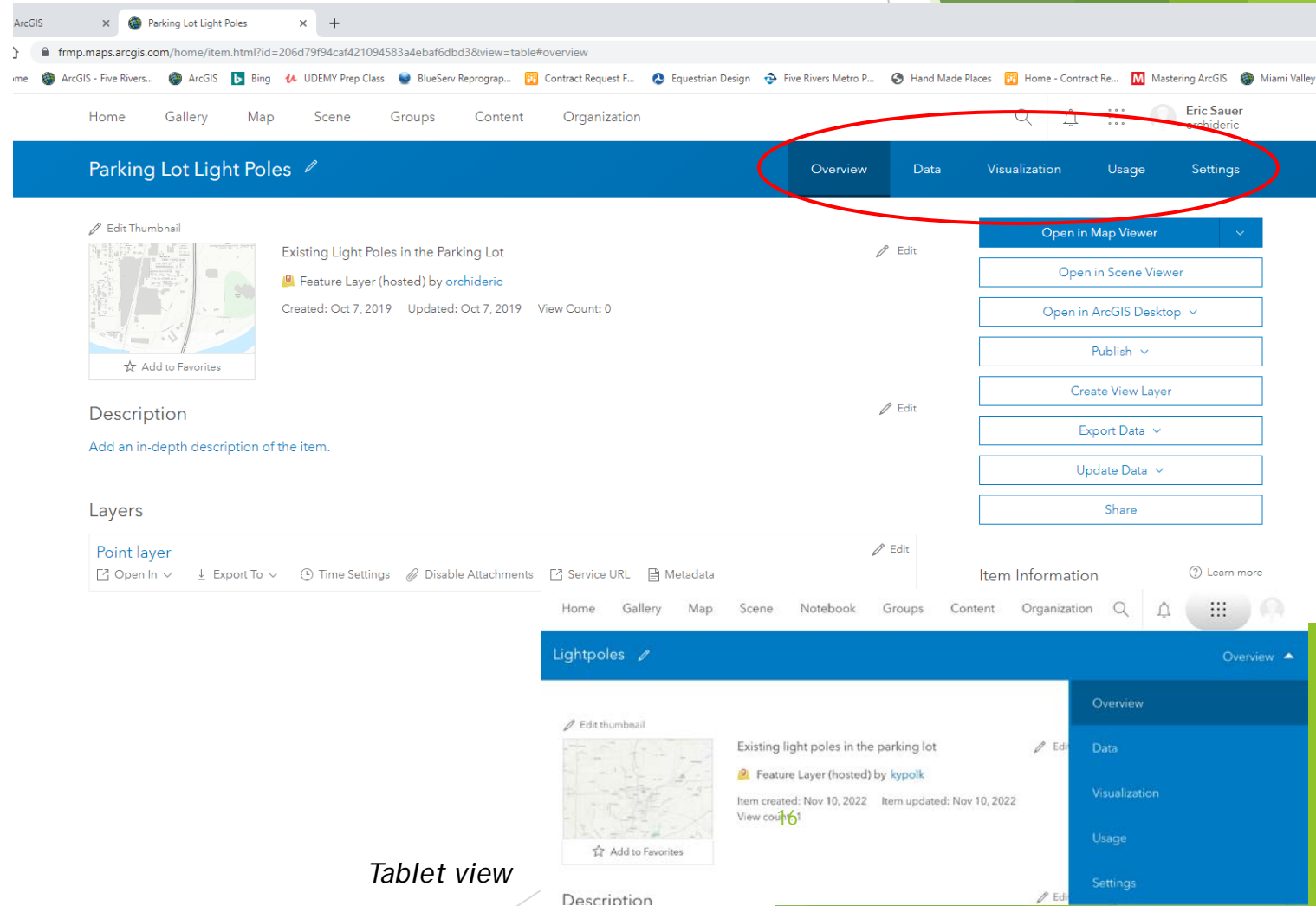
- ▶ Existing Light Poles in the Parking Lot

- ▶ Click Save

The screenshot shows the 'New item' dialog box in ArcGIS Online. It has a title bar with a close button. The main area contains four sections: 'Title' with a text input field containing 'Light Poles'; 'Folder' with a dropdown menu showing 'M Collector Training'; 'Tags' with a dropdown menu showing 'Add tags'; and 'Summary' with a text area containing 'Add a summary'. Below the summary field, it says 'Characters left: 2048'. At the bottom left is a 'Back' button. At the bottom right are 'Cancel' and 'Save' buttons, with the 'Save' button circled in red.

Building a Field Maps Map - ArcGIS Online

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



Building a Field Maps Map - ArcGIS Online

► 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

The screenshot shows the ArcGIS Online interface for a feature layer named 'Parking Lot Light Poles'. The 'Data' tab is selected, and the 'Fields' button is circled in red. The '+ Add' button is also circled in red. The table below lists the fields for the feature layer.

Display Name	Field Name	Type
OBJECTID	OBJECTID	ObjectID
Receiver Name	esrignss_receiver	String
Horizontal Accuracy (m)	esrignss_h_rms	Double
Vertical Accuracy (m)	esrignss_v_rms	Double
Latitude	esrignss_latitude	Double
Longitude	esrignss_longitude	Double
Altitude	esrignss_altitude	Double
PDOP	esrignss_pdop	Double
HDOP	esrignss_hdop	Double
VDOP	esrignss_vdop	Double
Fix Type	esrignss_fixtype	Small Integer

Building a Field Maps Map - ArcGIS Online

► Add Field

► Field Name

► Pole_Height

► Display Name

► Pole Height

► Type

► Leave as string

► Length

► Maximum number of characters

► Set at 25

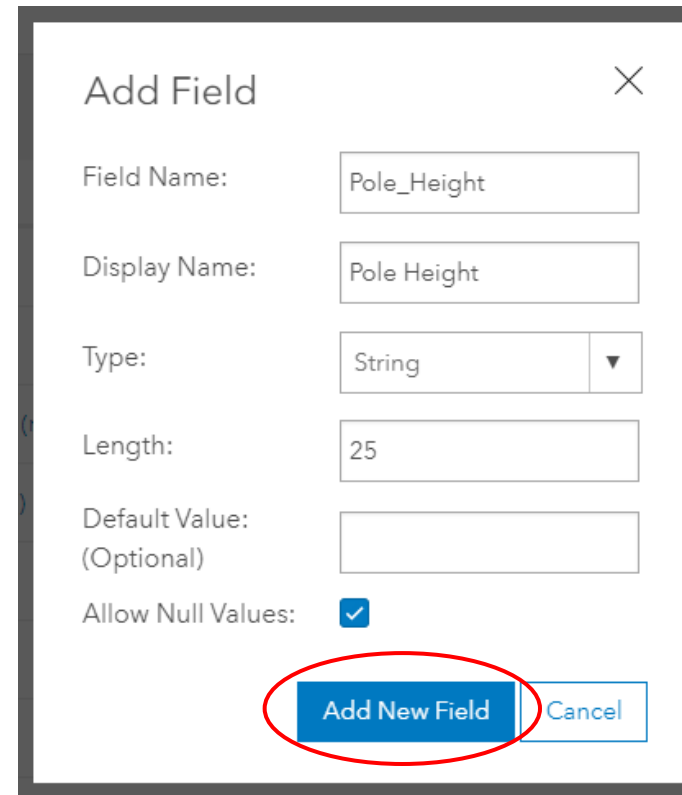
► Default Value

► Leave Blank

► Allow Null Values

► Leave Checked

► Click Add New Field Button



The screenshot shows the 'Add Field' dialog box with the following configuration:

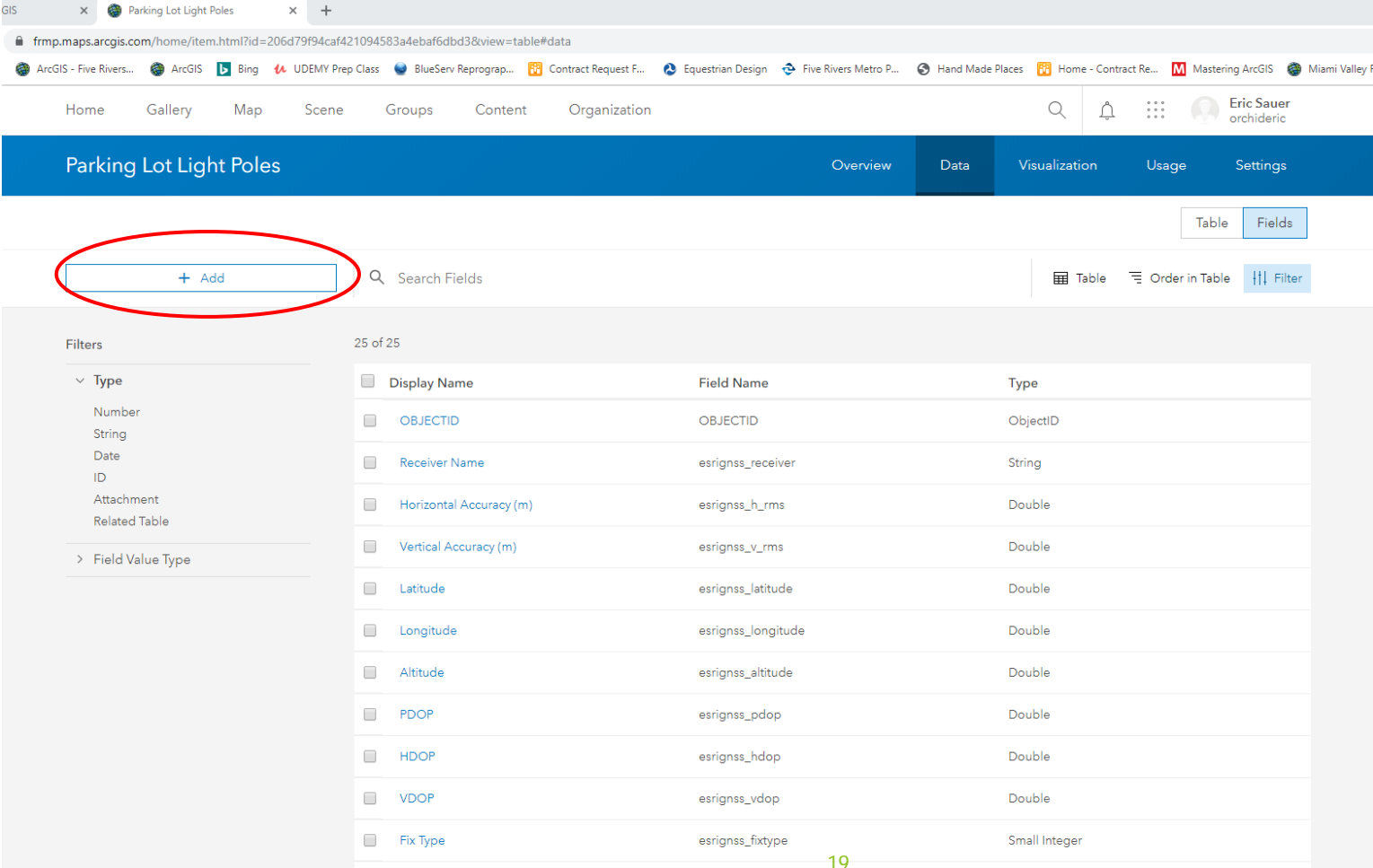
- Field Name: Pole_Height
- Display Name: Pole Height
- Type: String
- Length: 25
- Default Value: (Optional)
- Allow Null Values: ☒

The 'Add New Field' button is circled in red, indicating the next step in the process.

Building a Field Maps Map - ArcGIS Online

► Add Data Field

► Click + Add button

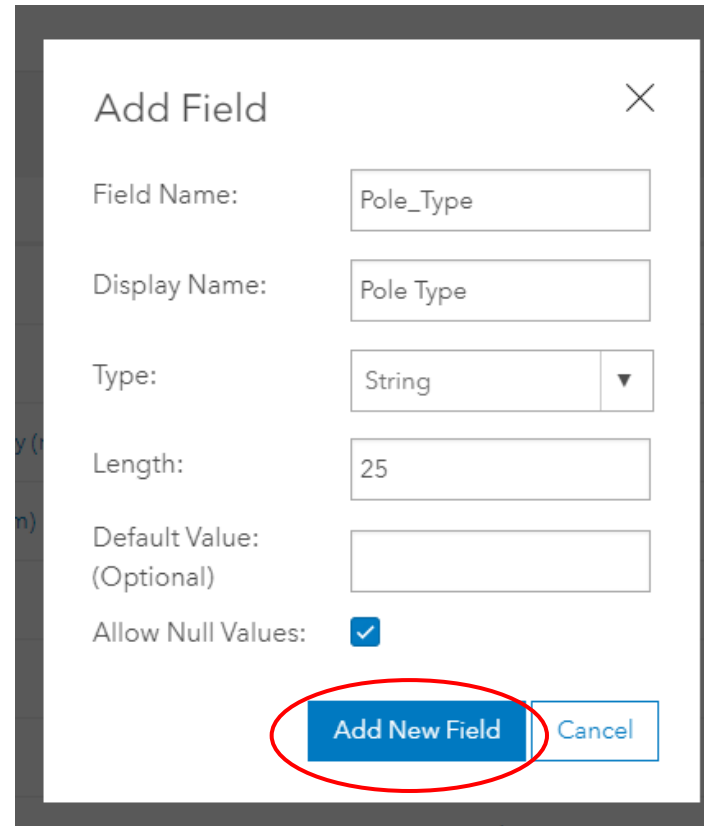


The screenshot shows the ArcGIS Online interface for a map titled "Parking Lot Light Poles". The "Data" tab is selected, and the "+ Add" button is circled in red. Below the button is a table of fields with columns: Display Name, Field Name, and Type.

Display Name	Field Name	Type
OBJECTID	OBJECTID	ObjectID
Receiver Name	esrignss_receiver	String
Horizontal Accuracy (m)	esrignss_h_rms	Double
Vertical Accuracy (m)	esrignss_v_rms	Double
Latitude	esrignss_latitude	Double
Longitude	esrignss_longitude	Double
Altitude	esrignss_altitude	Double
PDOP	esrignss_pdop	Double
HDOP	esrignss_hdop	Double
VDOP	esrignss_vdop	Double
Fix Type	esrignss_fixtype	Small Integer

Building a Field Maps Map - ArcGIS Online

- ▶ 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



The screenshot shows the 'Add Field' dialog box with the following settings:

- Field Name: Pole_Type
- Display Name: Pole Type
- Type: String
- Length: 25
- Default Value: (Optional)
- Allow Null Values: ☒

The 'Add New Field' button is circled in red.

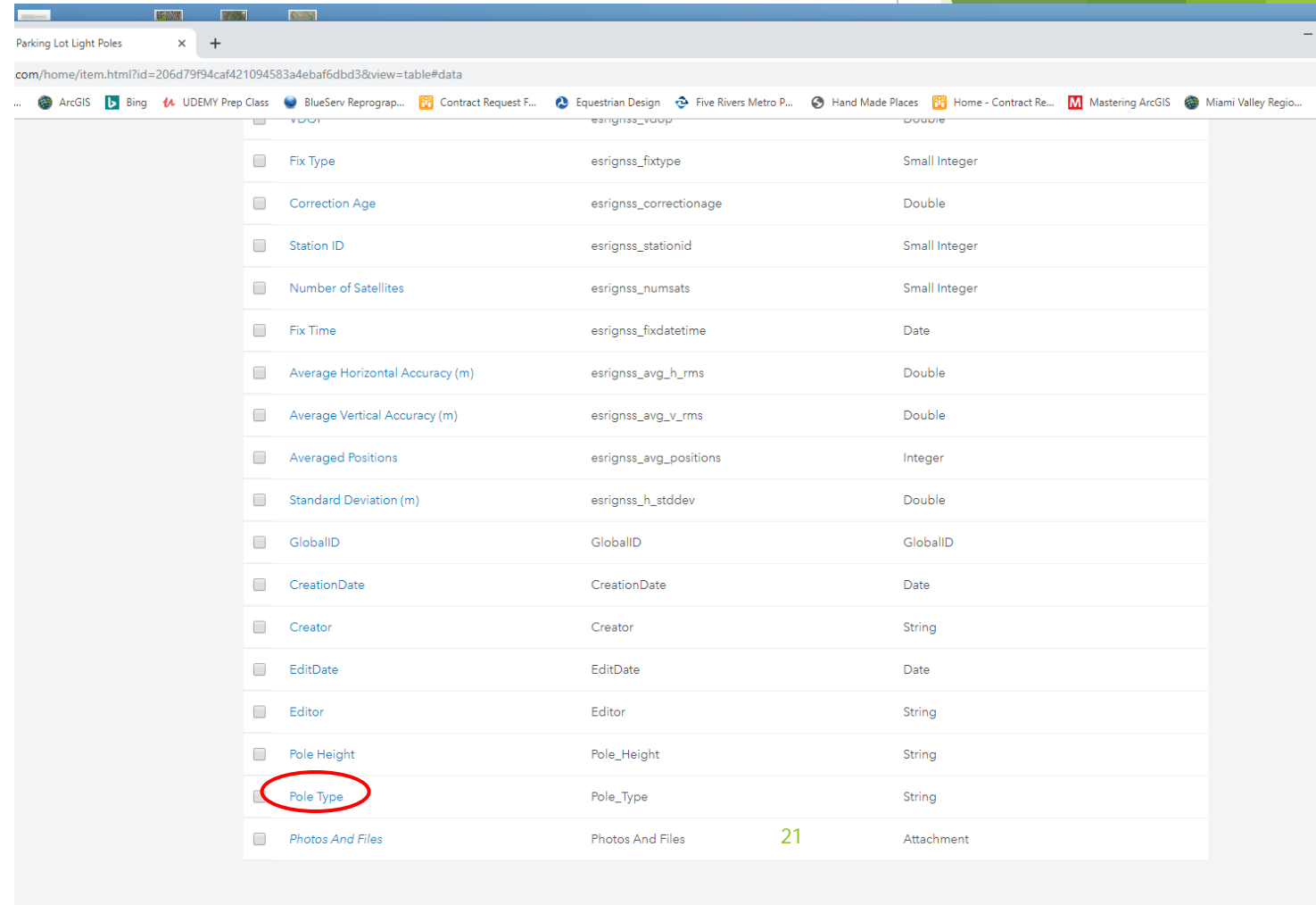
Building a Field Maps Map - ArcGIS Online

► Modify or Define Field

► Scroll down to find Field Name

► Pole Type

► Click Pole-Type Field Name



The screenshot shows the ArcGIS Online interface for a table named 'Parking Lot Light Poles'. The table is displayed in a web browser window. The table has several columns, including 'Fix Type', 'Correction Age', 'Station ID', 'Number of Satellites', 'Fix Time', 'Average Horizontal Accuracy (m)', 'Average Vertical Accuracy (m)', 'Averaged Positions', 'Standard Deviation (m)', 'GlobalID', 'CreationDate', 'Creator', 'EditDate', 'Editor', 'Pole Height', 'Pole Type', and 'Photos And Files'. The 'Pole Type' field is circled in red, indicating it is the field to be modified or defined.

Field Name	Field Alias	Field Type
Fix Type	esignss_fixtype	Small Integer
Correction Age	esignss_correctionage	Double
Station ID	esignss_stationid	Small Integer
Number of Satellites	esignss_numsats	Small Integer
Fix Time	esignss_fixdatetime	Date
Average Horizontal Accuracy (m)	esignss_avg_h_rms	Double
Average Vertical Accuracy (m)	esignss_avg_v_rms	Double
Averaged Positions	esignss_avg_positions	Integer
Standard Deviation (m)	esignss_h_stddev	Double
GlobalID	GlobalID	GlobalID
CreationDate	CreationDate	Date
Creator	Creator	String
EditDate	EditDate	Date
Editor	Editor	String
Pole Height	Pole_Height	String
Pole Type	Pole_Type	String
Photos And Files	Photos And Files	Attachment

Building a Field Maps Map - ArcGIS Online

► 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

The screenshot shows the 'Describe attribute fields' interface in ArcGIS Online. The field being edited is 'Pole Type'. The interface includes a search bar, a list of fields on the left, and a main panel with sections for Description, Field Value Type, and Settings. The 'Create List' button is highlighted with a red circle, and the 'Edit' button is also highlighted with a red circle.

Field List:

- OBJECTID
- Receiver Name
- Horizontal Accuracy (m)
- Vertical Accuracy (m)
- Latitude
- Longitude
- Altitude
- PDOP
- HDOP
- VDOP
- Fix Type
- Correction Age
- Station ID
- Number of Satellites
- Fix Time
- Average Horizontal Accuracy (m)
- Average Vertical Accuracy (m)
- Averaged Positions
- Standard Deviation (m)
- GlobalID
- CreationDate

Pole Type

Description
A brief summary of the item is not available.

Field Value Type
Field Value type is not available.

Settings

Allows Null Values	Yes
Editable	Yes
Default Value	None
Length	25
Unique	No

Details
Type: String
Name: Pole_Type

Building a Field Maps Map - ArcGIS Online

► 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

list of Values: Pole Type

Label	Code	
Aluminum	Alum	(4)
Concrete	Conc	(0)
Steel	Stl	(0)
Wood	Wd	(0)

+ Add

Add, edit, reorder, and delete items in the list. The Label is the displayed value and can be any text. The Code is the value stored in the database and must match the field type.

Note: Editing the list here does not update your data. You will need to edit your data to match the list specified here.

Delete List Save Cancel

Building a Field Maps Map - ArcGIS Online

► Modify or Define Layer Settings

► Click Settings

► Set editing permissions

► MAKE SURE TO ENABLE EDITING

The screenshot shows the ArcGIS Online interface. The top navigation bar includes 'Home', 'Gallery', 'Map', 'Scene', 'Groups', 'Content', and 'Organization'. The user 'Eric Sauer orchideric' is logged in. The 'Settings' tab is selected in the top right. The main content area shows the 'Pole Type' layer settings. On the left, a list of fields is visible, including 'OBJECTID', 'Receiver Name', 'Horizontal Accuracy (m)', 'Vertical Accuracy (m)', 'Latitude', 'Longitude', 'Altitude', 'PDOP', 'HDOP', 'VDOP', 'Fix Type', 'Correction Age', 'Station ID', 'Number of Satellites', 'Fix Time', 'Average Horizontal Accuracy (m)', and 'Average Vertical Accuracy (m)'. The 'Pole Type' settings panel on the right includes a 'Description' section, a 'Field Value Type' section, a 'Settings' table, and a 'List of Values (Domain)' section.

Settings	
Allows Null Values	Yes
Editable	Yes
Default Value	None
Length	25
Unique	No

List of Values (Domain)	
Aluminum	
Concrete	
Steel	
Wood	

Building a Field Maps Map - ArcGIS Online

► 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

General Feature Layer (hosted)

Feature Layer (hosted)

Editing

- ☒ Enable editing.
- ☐ Keep track of created and updated features.
- ☒ Keep track of who created and last updated features.
- ☒ Enable Sync (disconnected editing with synchronization).

• Who can edit features?
Share the layer to specific groups of people, the organization or publicly via the Share button on the Overview tab. This layer is not shared.

• What kind of editing is allowed?

- ☒ Add, update, and delete features
- ☐ Add and update features
- ☐ Add features
- ☐ Update features
- ☐ Update attributes only

• What features can editors see?

- ☒ Editors can see all features
- ☐ Editors can only see their own features (requires tracking)
- ☐ Editors can't see any features, even those they add

• What features can editors edit?

- ☒ Editors can edit all features
- ☐ Editors can only edit their own features (requires tracking)

• What access do anonymous editors (not signed in) have?

- ☒ The same as signed in editors
- ☐ Only add new features, if allowed above (requires tracking)

• Who can manage edits?

- You
- Administrators
- Data curators with the appropriate privileges

Building a Field Maps Map - ArcGIS Online

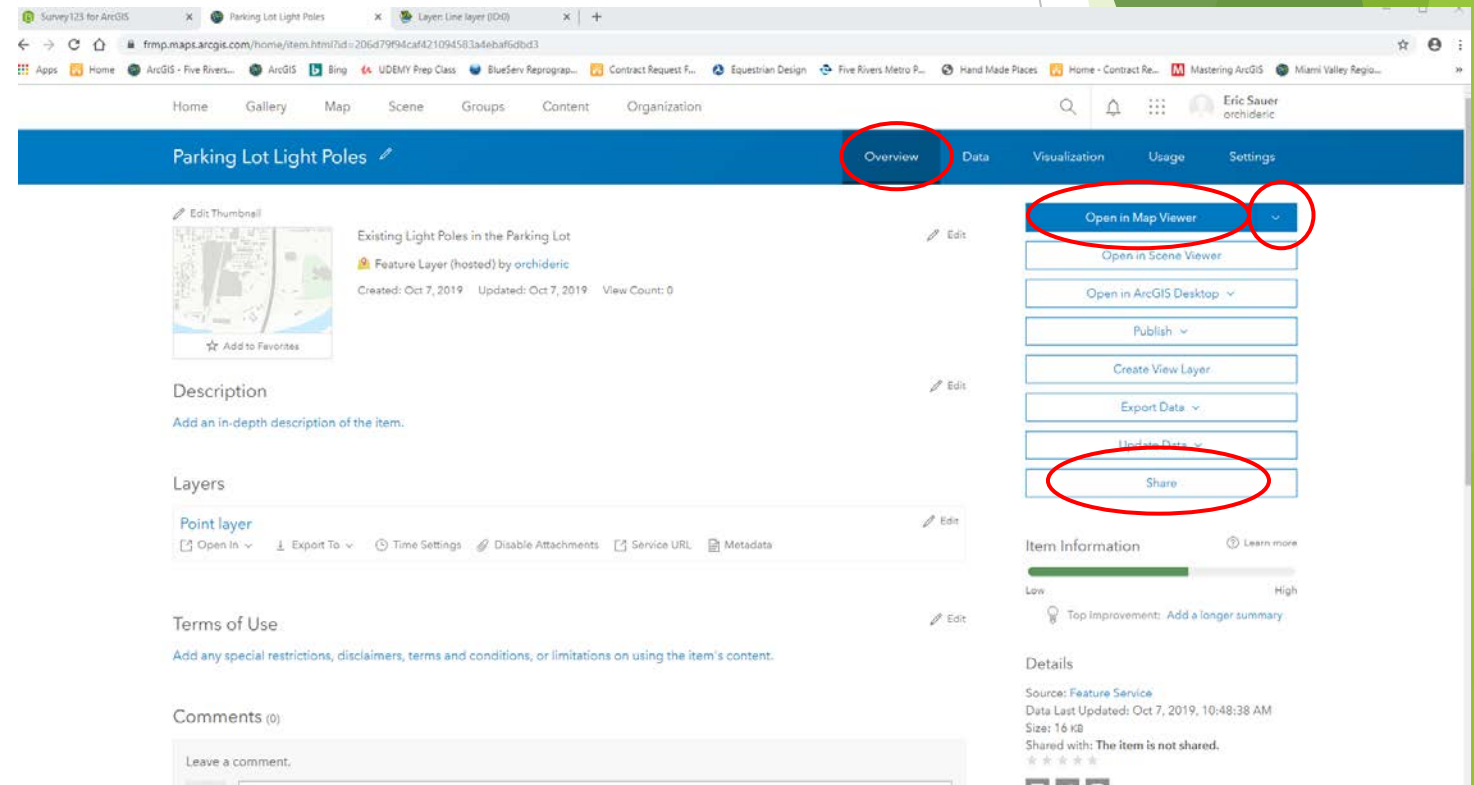
► Modify or Define Layer Settings

► 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



Building a Field Maps Map - ArcGIS Online

► Finalizing the Map for Field Maps

► Save the Map

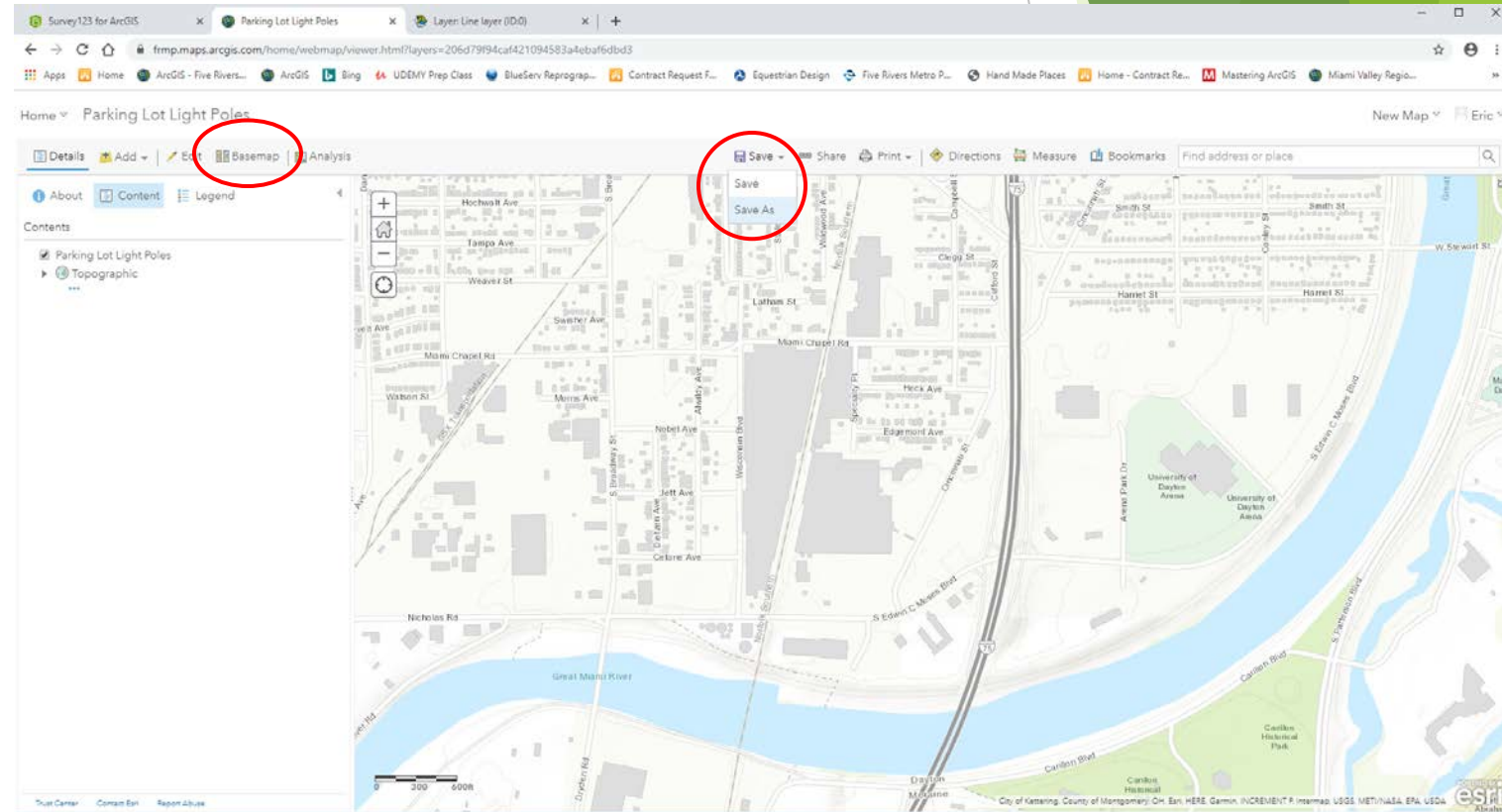
- Click the Save Button - Select Save As
- Title: Name the Map
- Tags: Enter Desired Tags
- Summary: Add a description of Map
- Save in folder: Select desired folder

► Establish Map Extents

► Change the Basemap

- Click Basemap
- Select Imagery

► Click Save

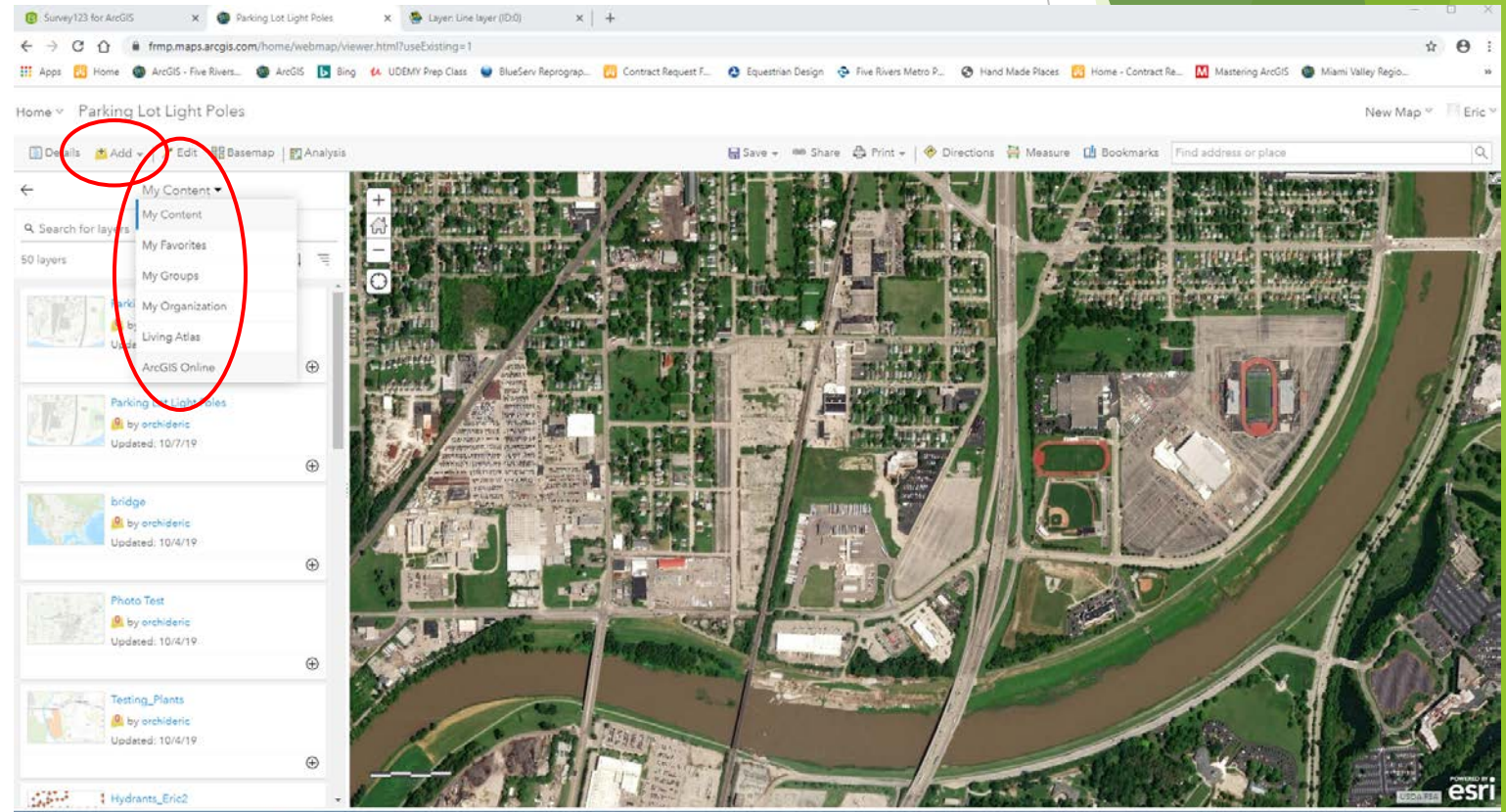


Building a Field Maps Map - ArcGIS Online

► 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

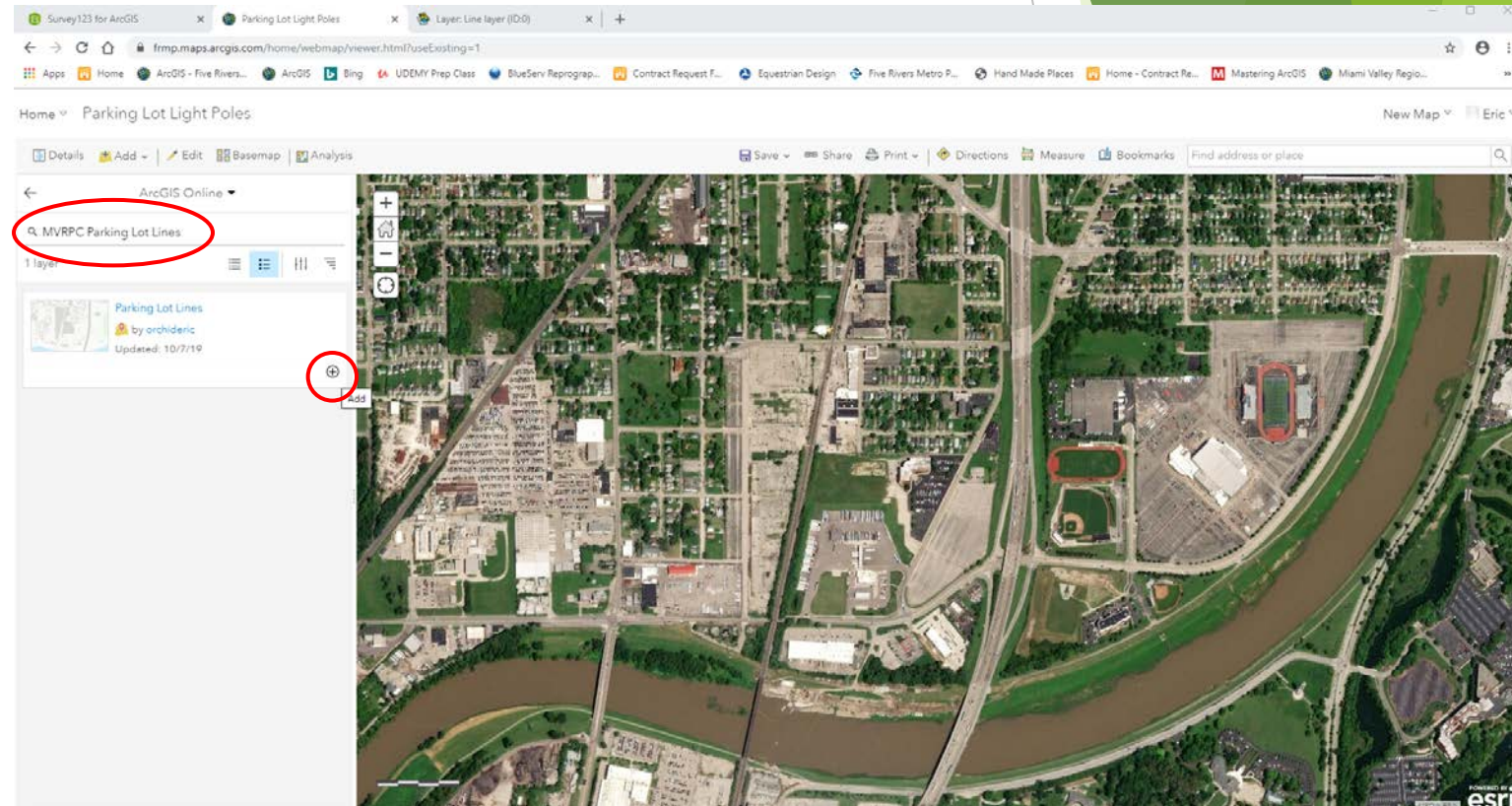


Building a Field Maps Map - ArcGIS Online

► 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

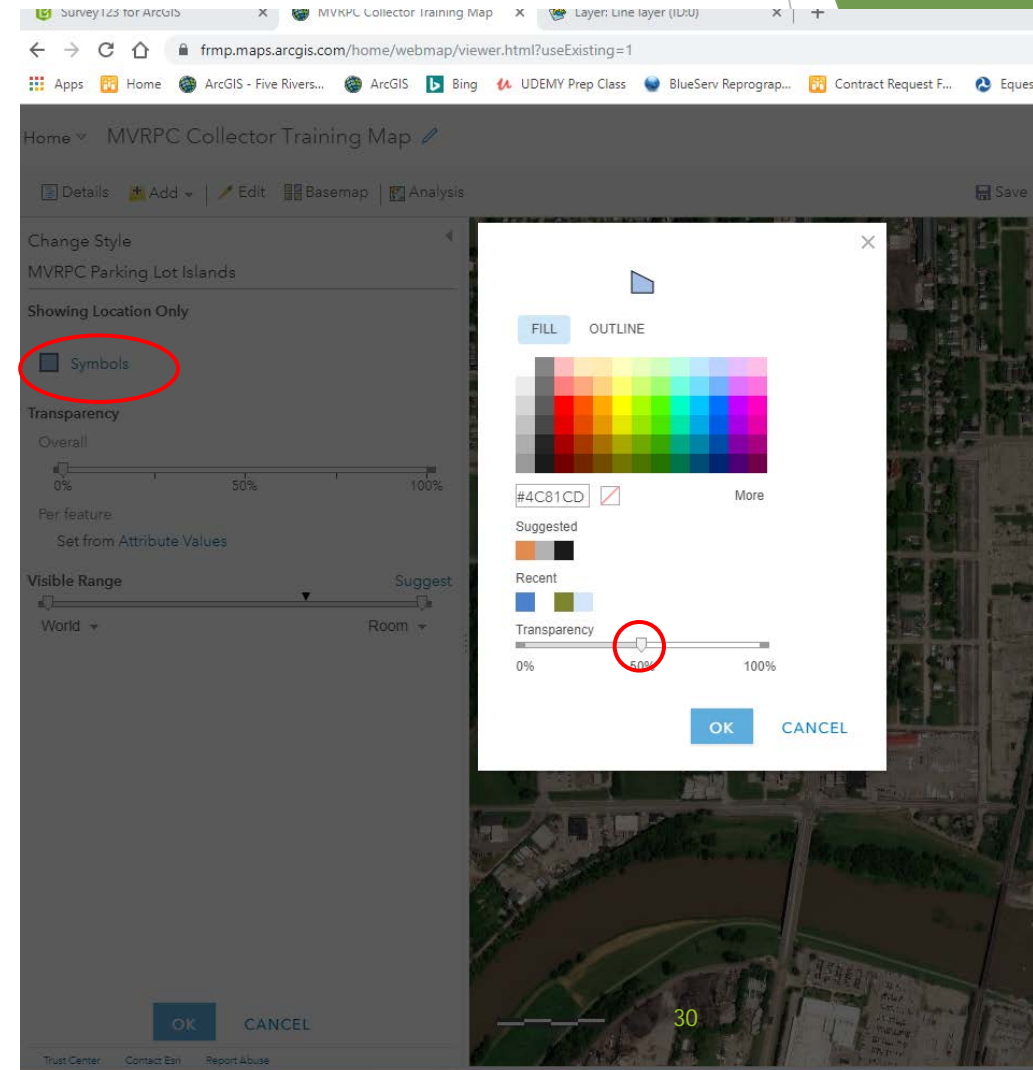


Building a Field Maps Map - ArcGIS Online

► 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



Building a Field Maps Map - ArcGIS Online

► Finalizing the Map for Field Maps

► Save the Map

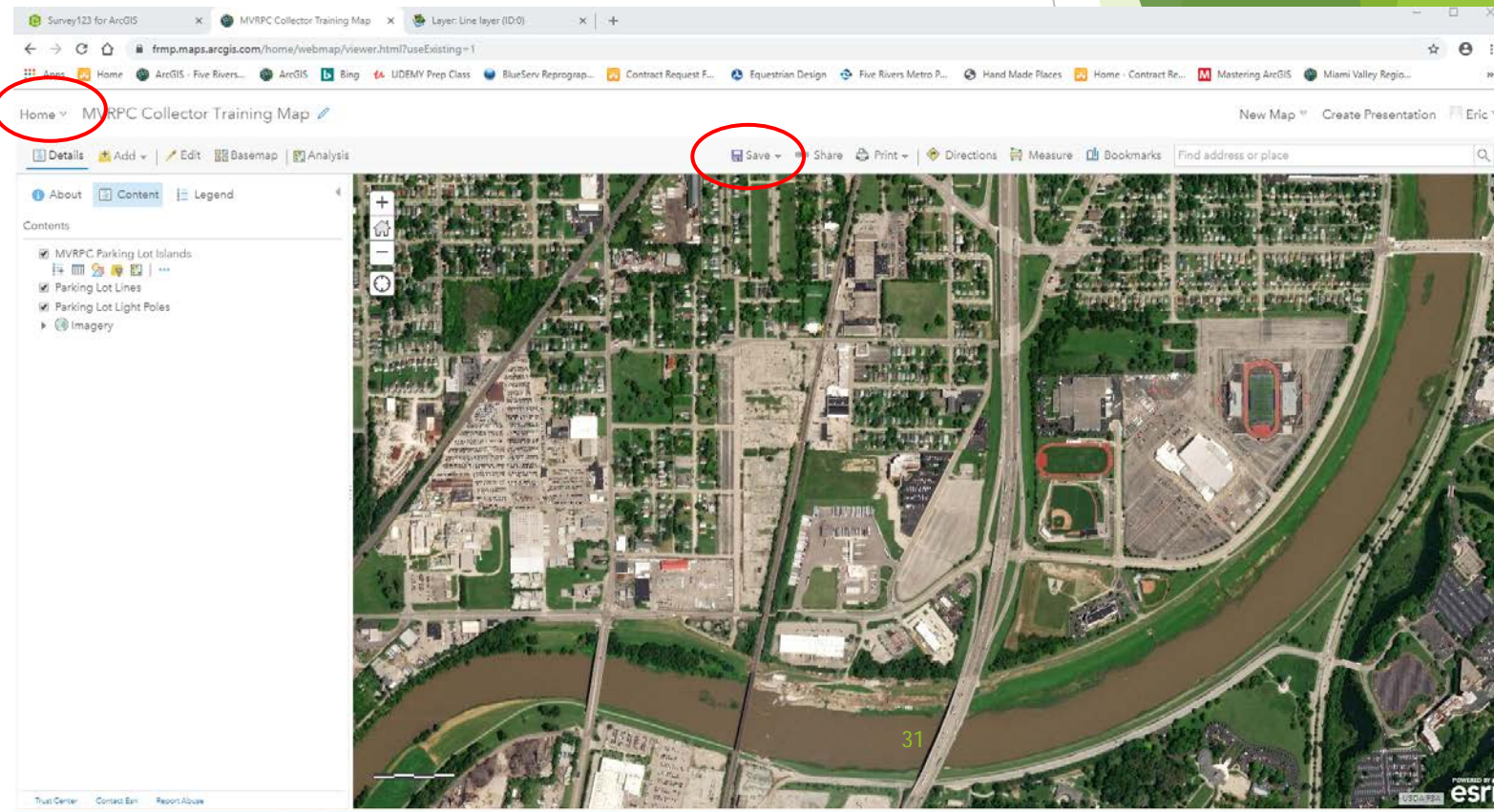
► Click Save As

► 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

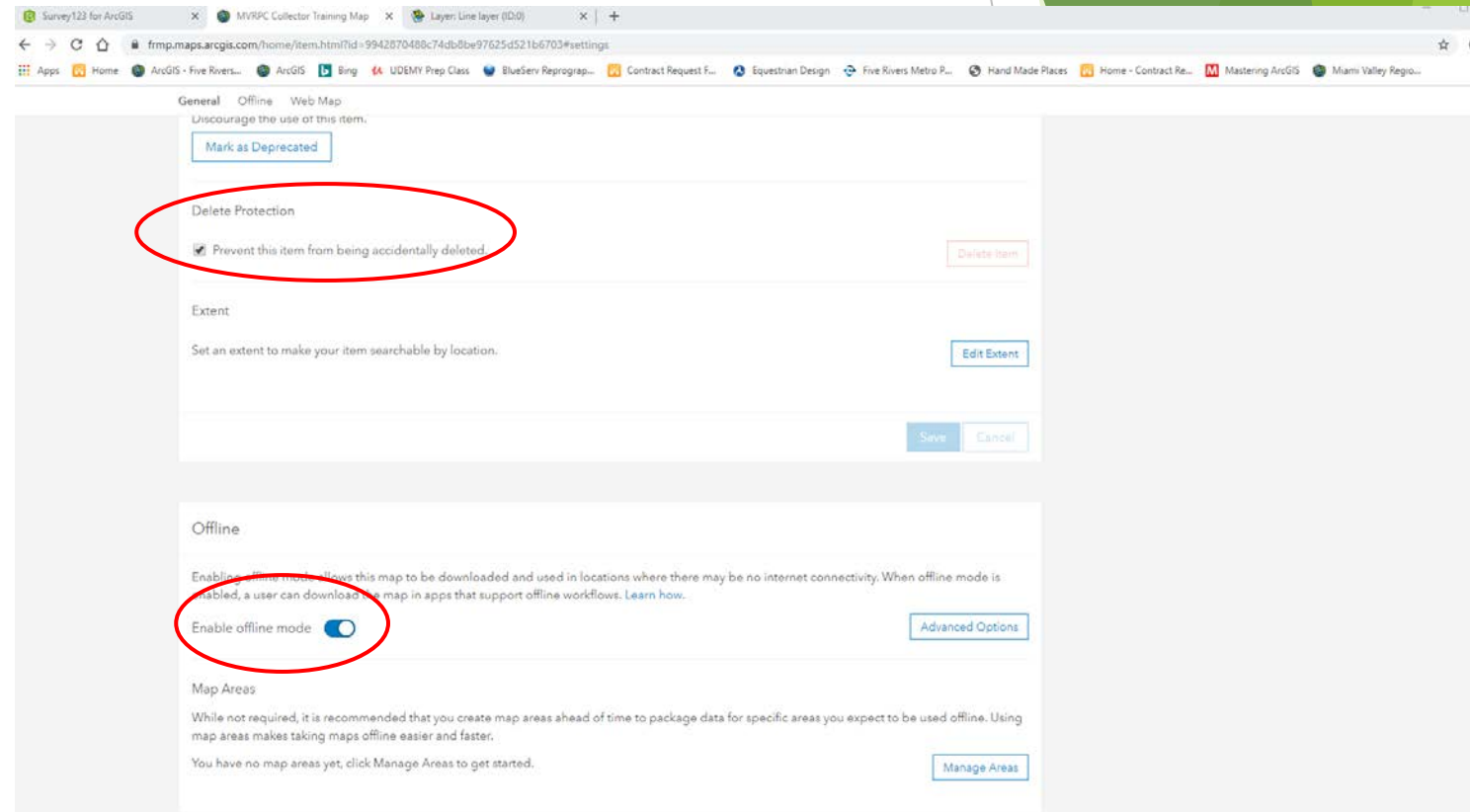


Building a Field Maps Map - ArcGIS Online

► Finalizing the Map for Field Maps

► Click Settings

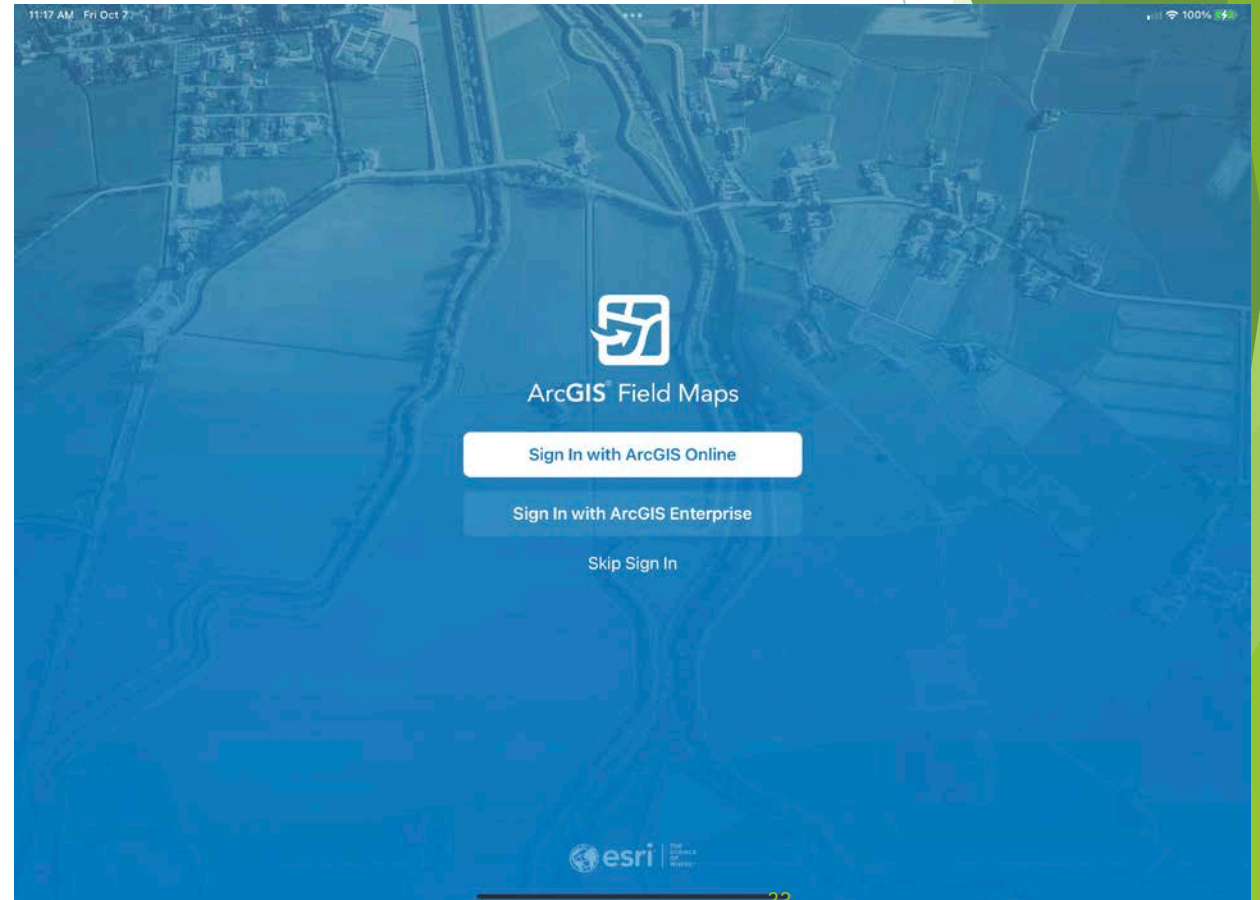
- Click the Delete Protection Box
- Leave Enable Offline Mode turned on
- Map Areas
 - Can be used to select specific parts of a larger map area to use in an offline situation. For example, selecting a park from a county wide plan to allow for faster and easier access to specific areas to use in Field 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



Building a Field Maps Map - ArcGIS Online



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

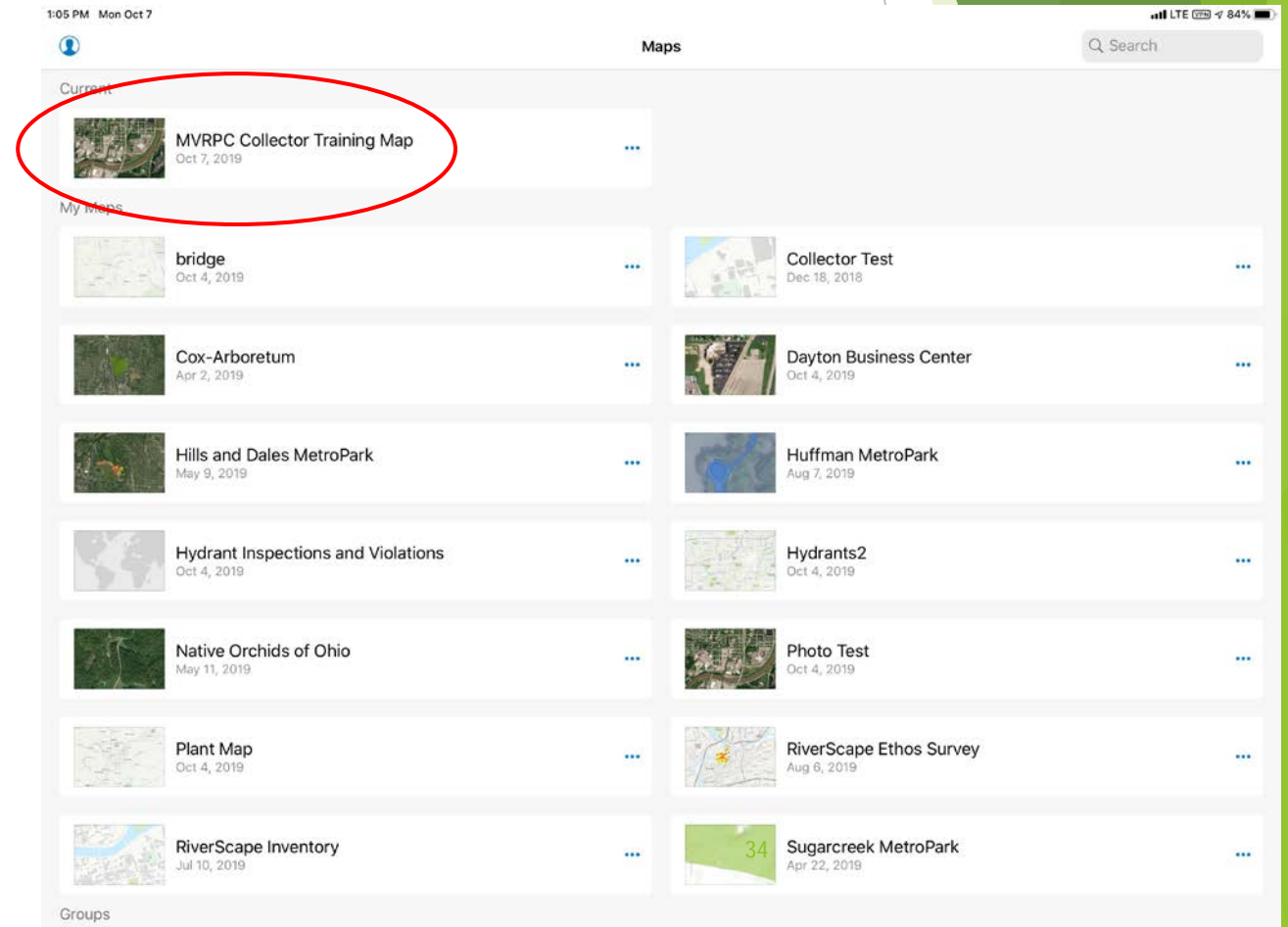


Building a Field Maps Map - ArcGIS Online



► 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)

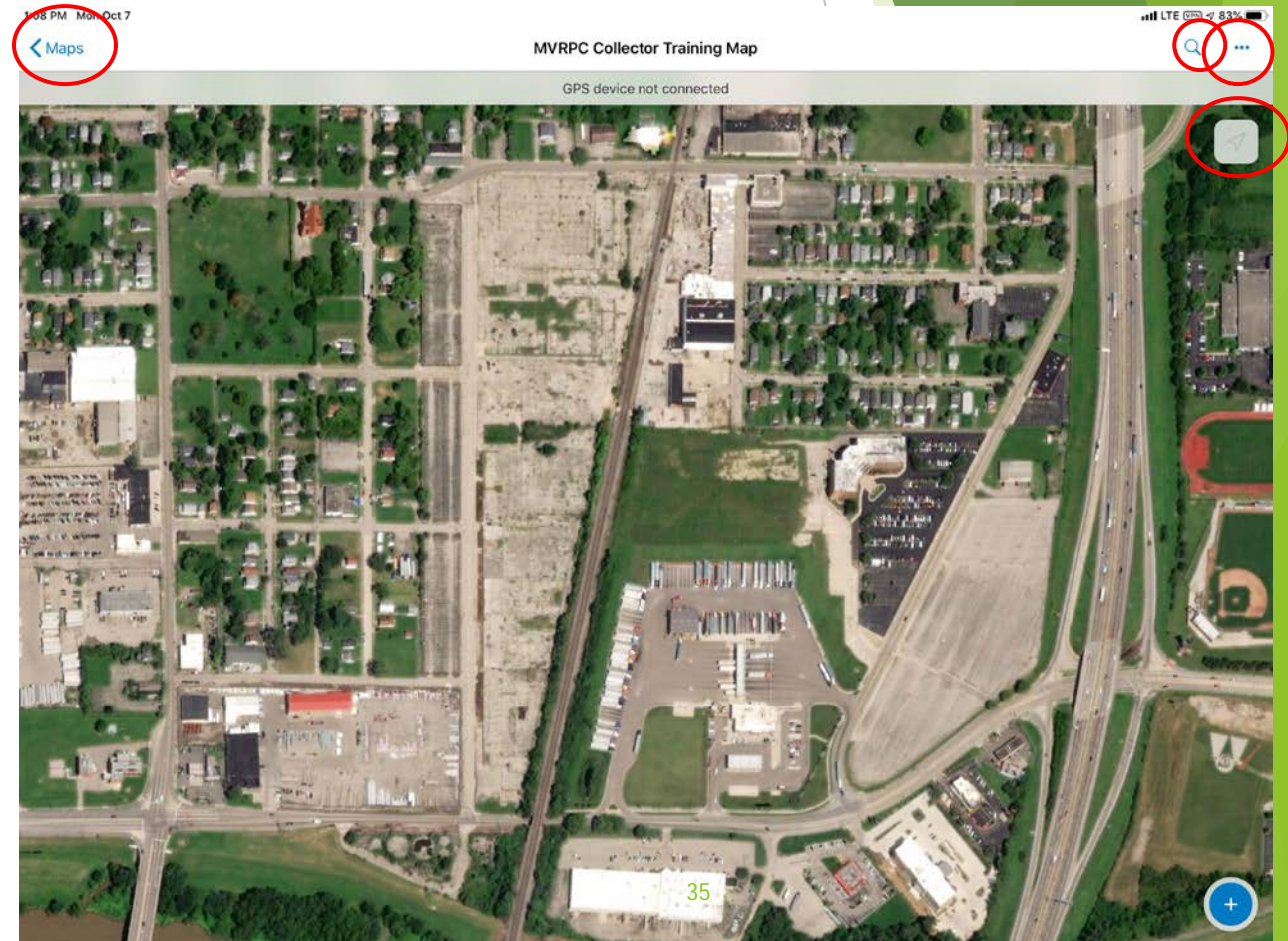


Building a Field Maps Map - ArcGIS Online



► 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 Navigation

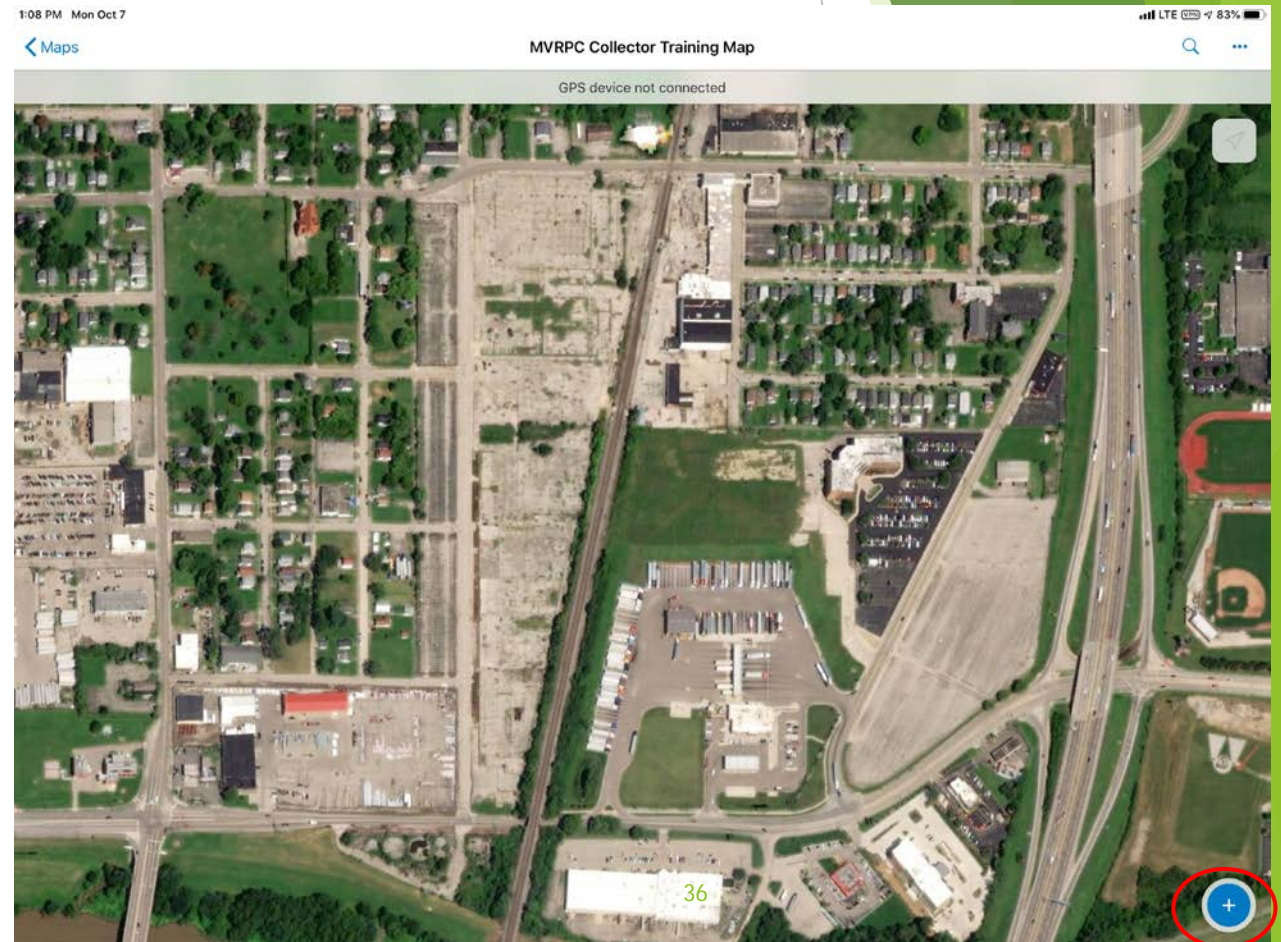


Building a Field Maps Map - ArcGIS Online



► 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 +)



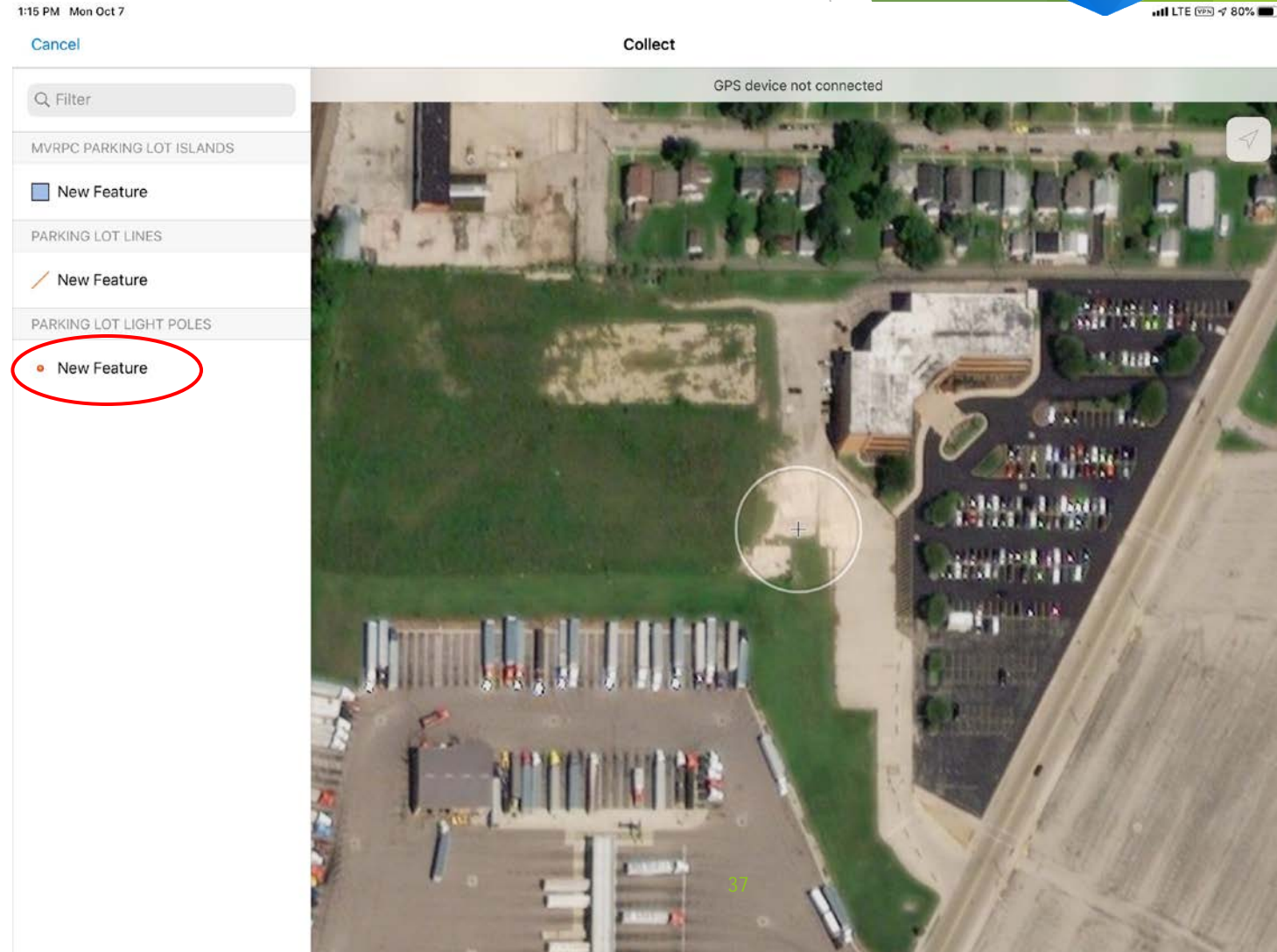
Building a Field Maps Map - ArcGIS Online



► Field Maps

► Create a new Point

- Select New Feature under Parking Lot Light Poles



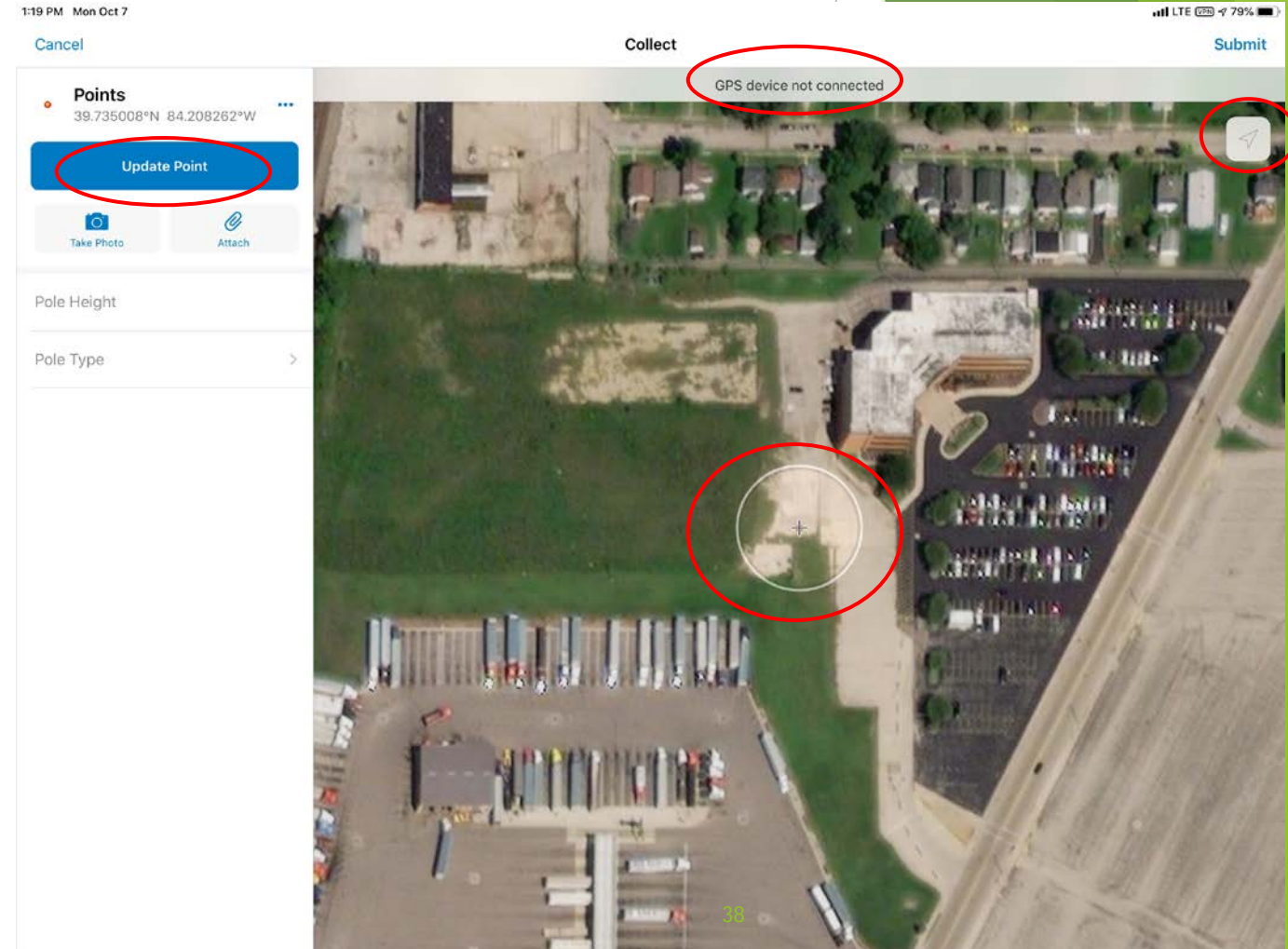
Building a Field Maps Map - ArcGIS Online



► 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



Building a Field Maps Map - ArcGIS Online



► 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

A screenshot of the ArcGIS Field Maps app interface. The top bar shows the time '1:23 PM Mon Oct 7' and the status 'Collect'. A 'Submit' button is circled in red in the top right corner. Below the bar, the 'Points' section shows coordinates '39.734952°N 84.208893°W' and an 'Update Point' button. A 'Take Photo' button and an 'Attach' button are also visible. The 'Pole Height' field is empty, and the 'Pole Type' field is set to 'Aluminum'. A dropdown menu is open, showing a list of materials: 'No Value', 'Aluminum' (selected with a blue checkmark), 'Concrete', 'Steel', and 'Wood'. The background is an aerial map view of a residential area with a parking lot and houses.

Building a Field Maps Map - ArcGIS Online



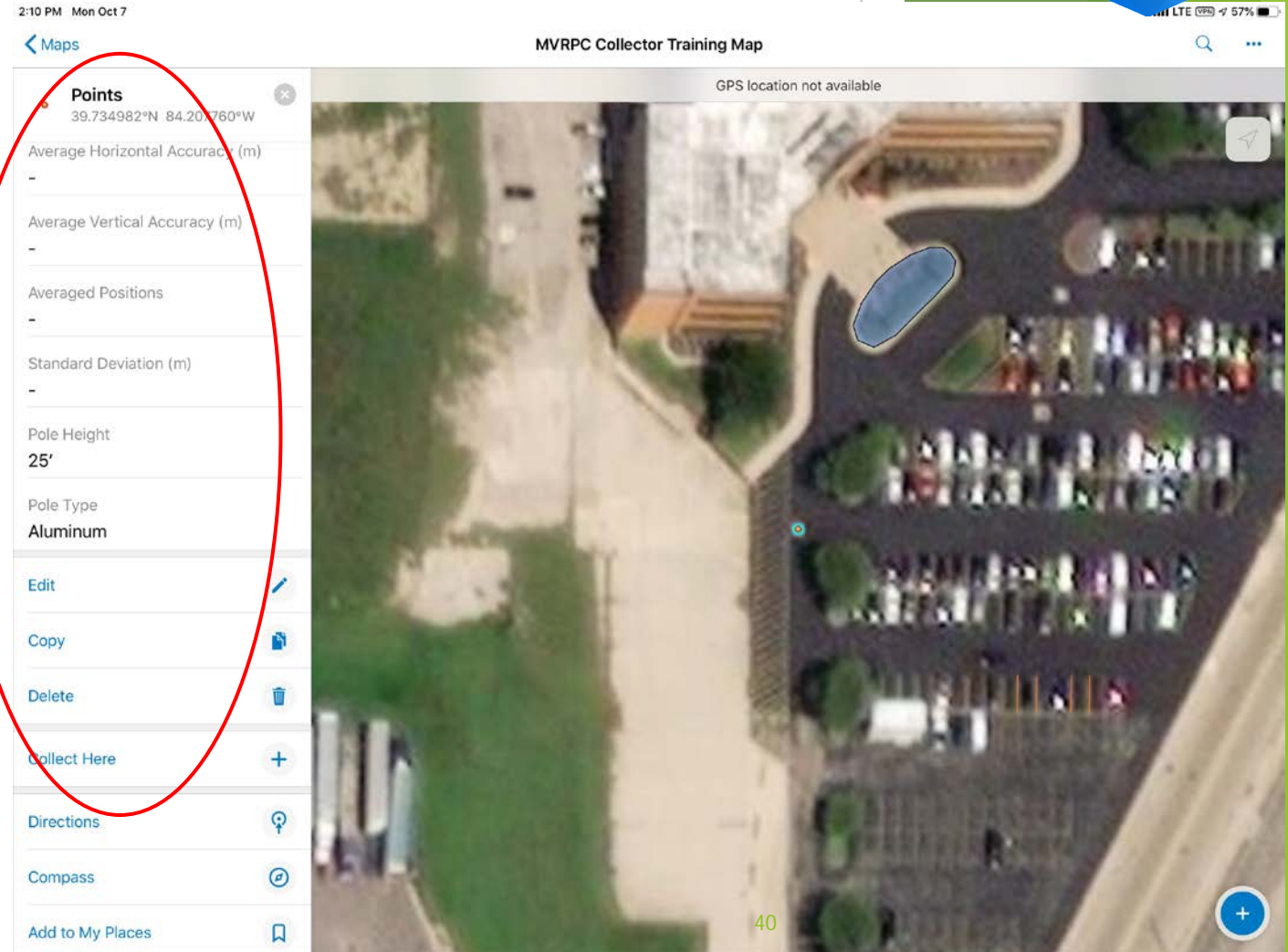
► Field Maps

► Editing Existing Points

► Select an existing point

► Edits

- Data
- Update point location
- Copy
- Delete
- Collect here



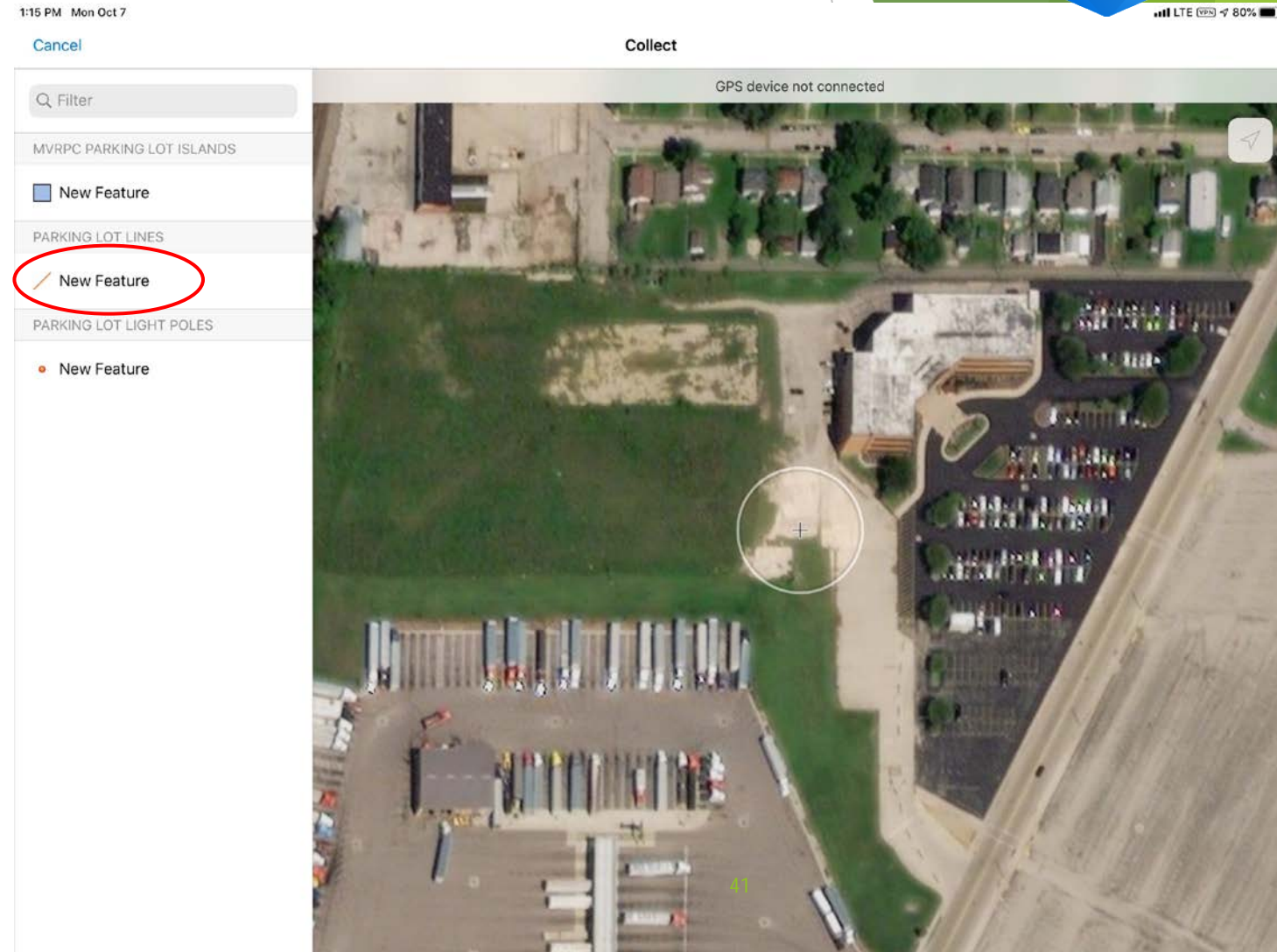
Building a Field Maps Map - ArcGIS Online



► 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



Building a Field Maps Map - ArcGIS Online



► Field Maps

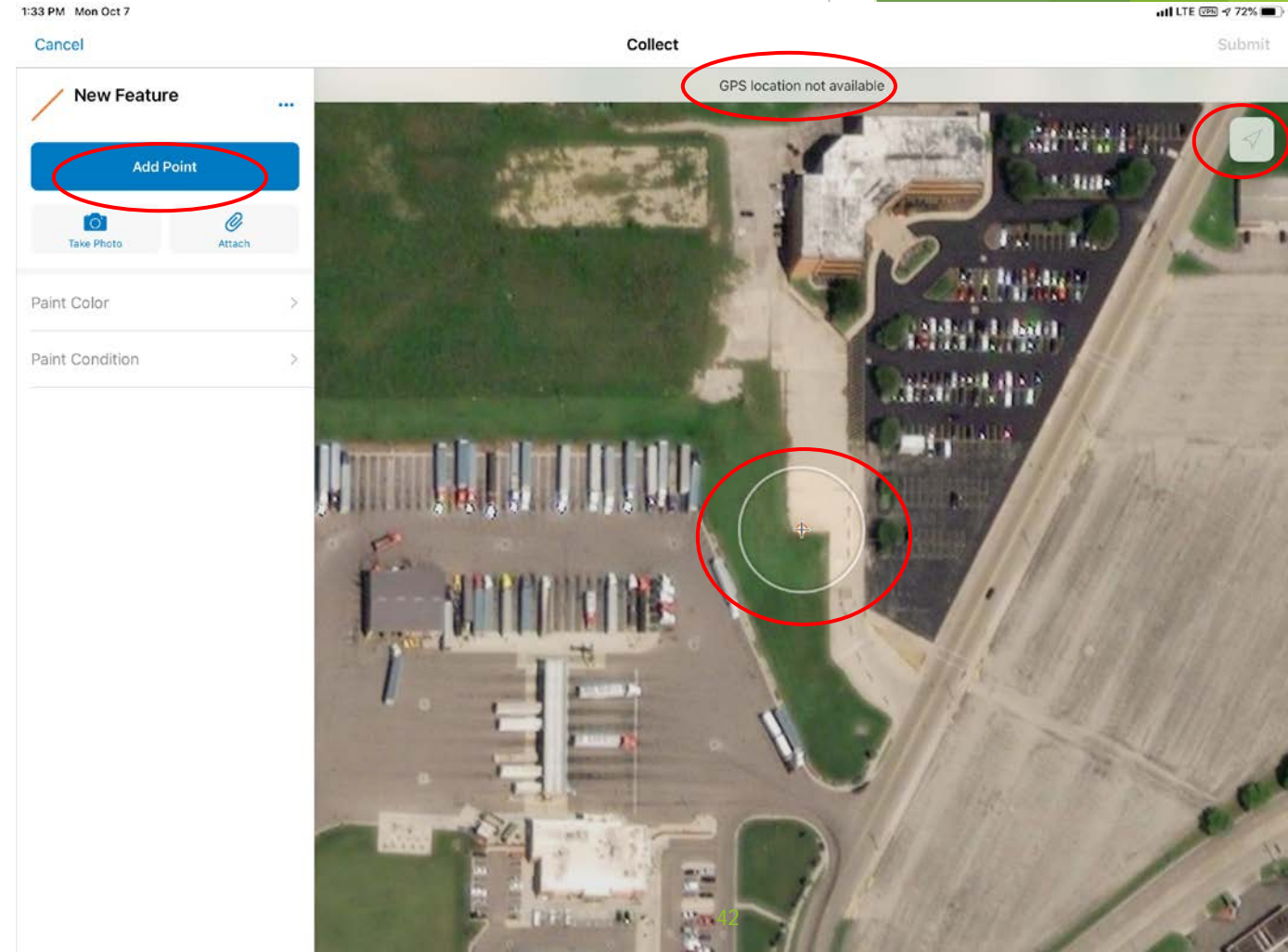
► Create a new Line

► 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



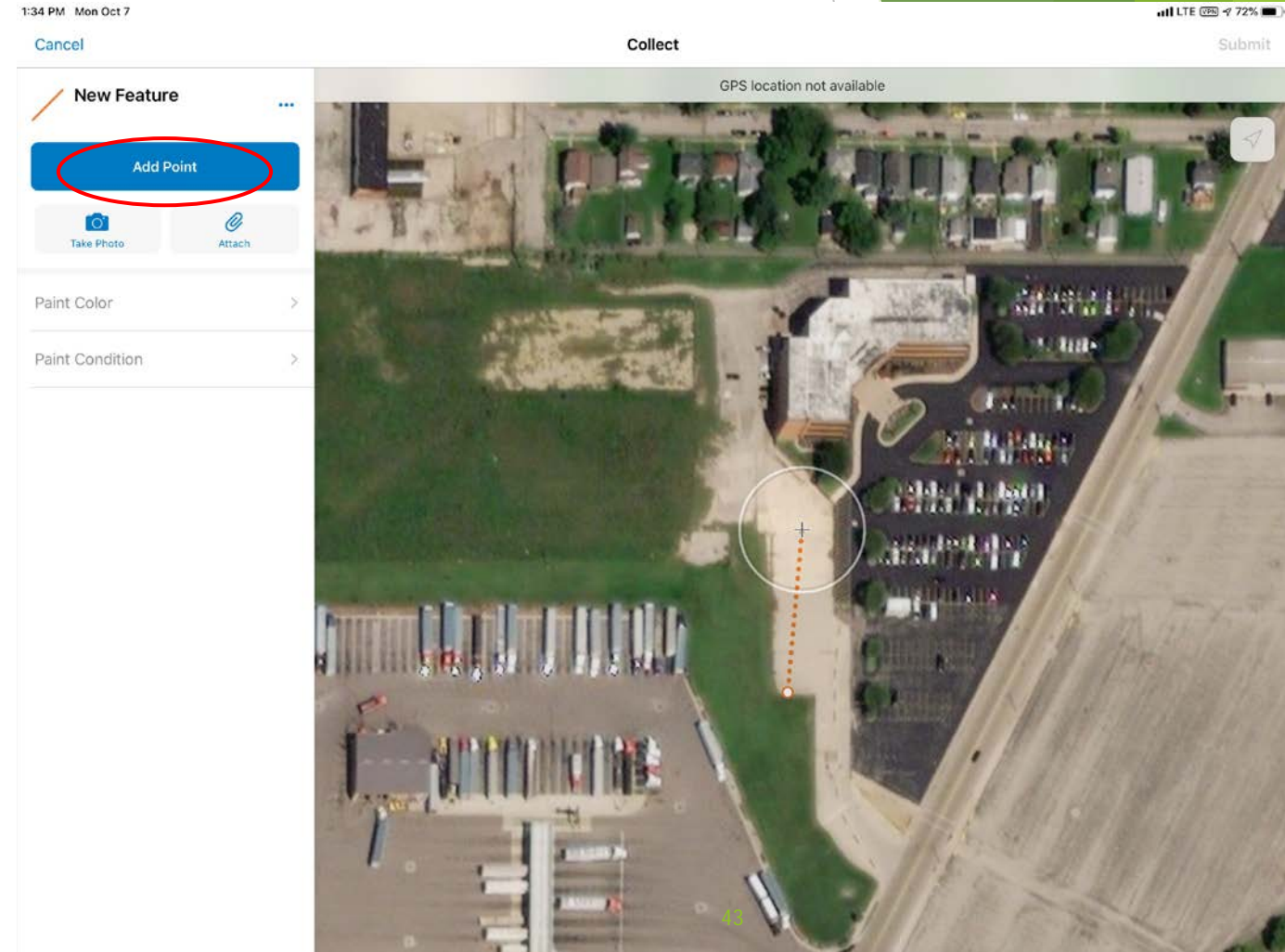
Building a Field Maps Map - ArcGIS Online



► 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



Building a Field Maps Map - ArcGIS Online



► Field Maps

► Create a new Line

► Fill in the form

► Photo

► Attach

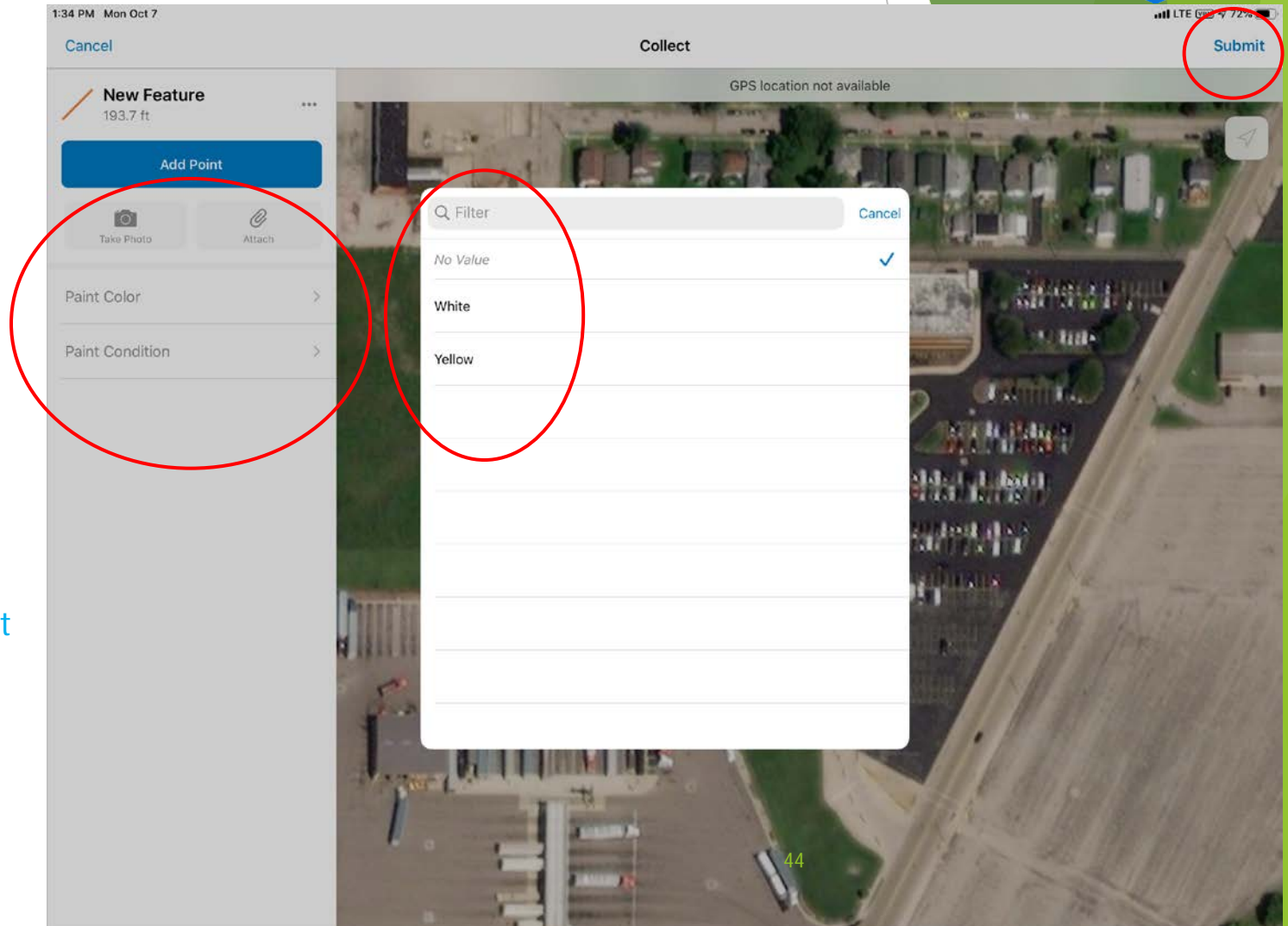
► Paint Color

► Select from pop up menu

► Paint Condition

► Select material from menu

► Once Form is complete Press Submit



Building a Field Maps Map - ArcGIS Online



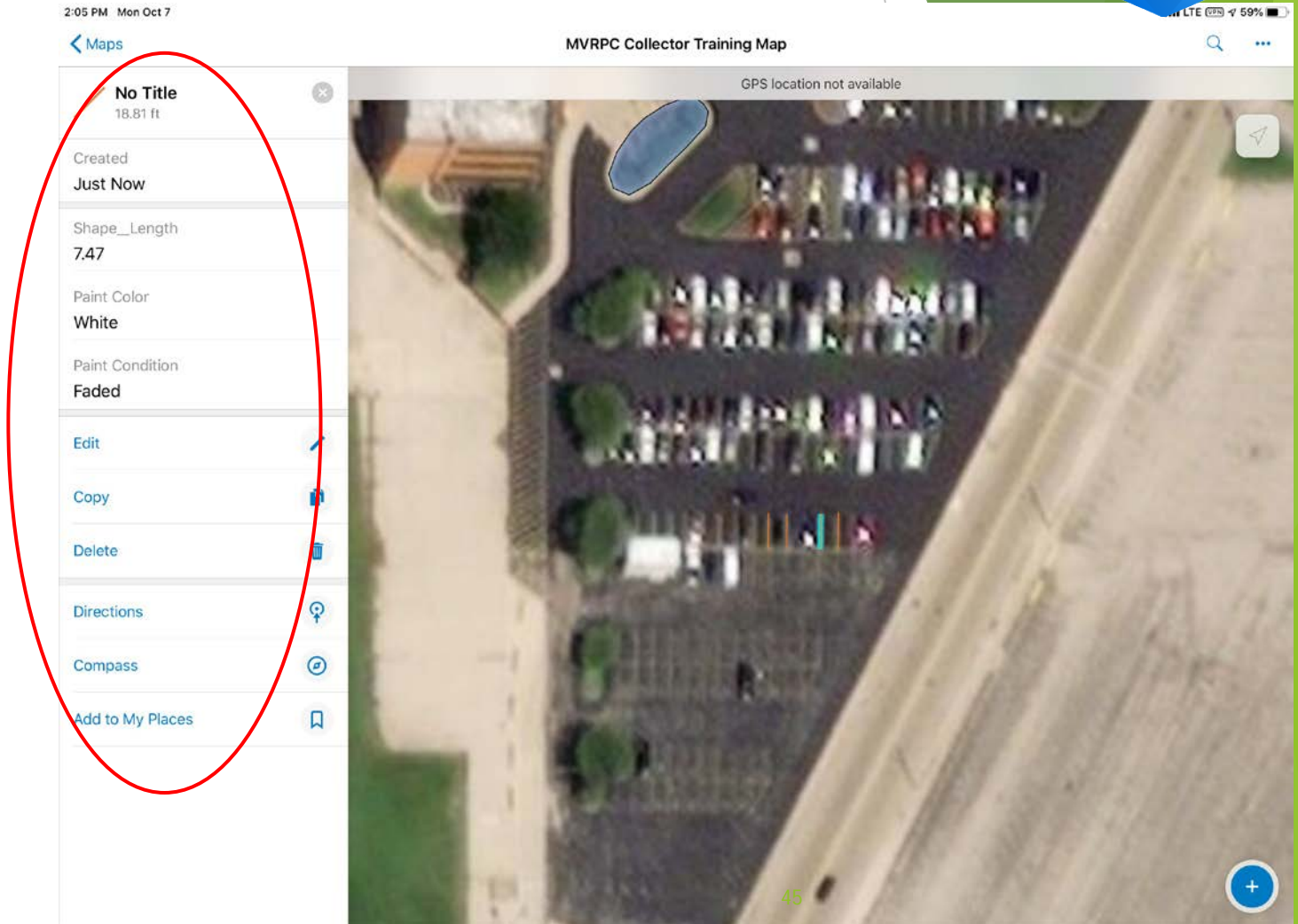
► Field Maps

► Create a new Line

► Select an existing line

► Completed Line

- Edits
- Data
- Same options as a Point



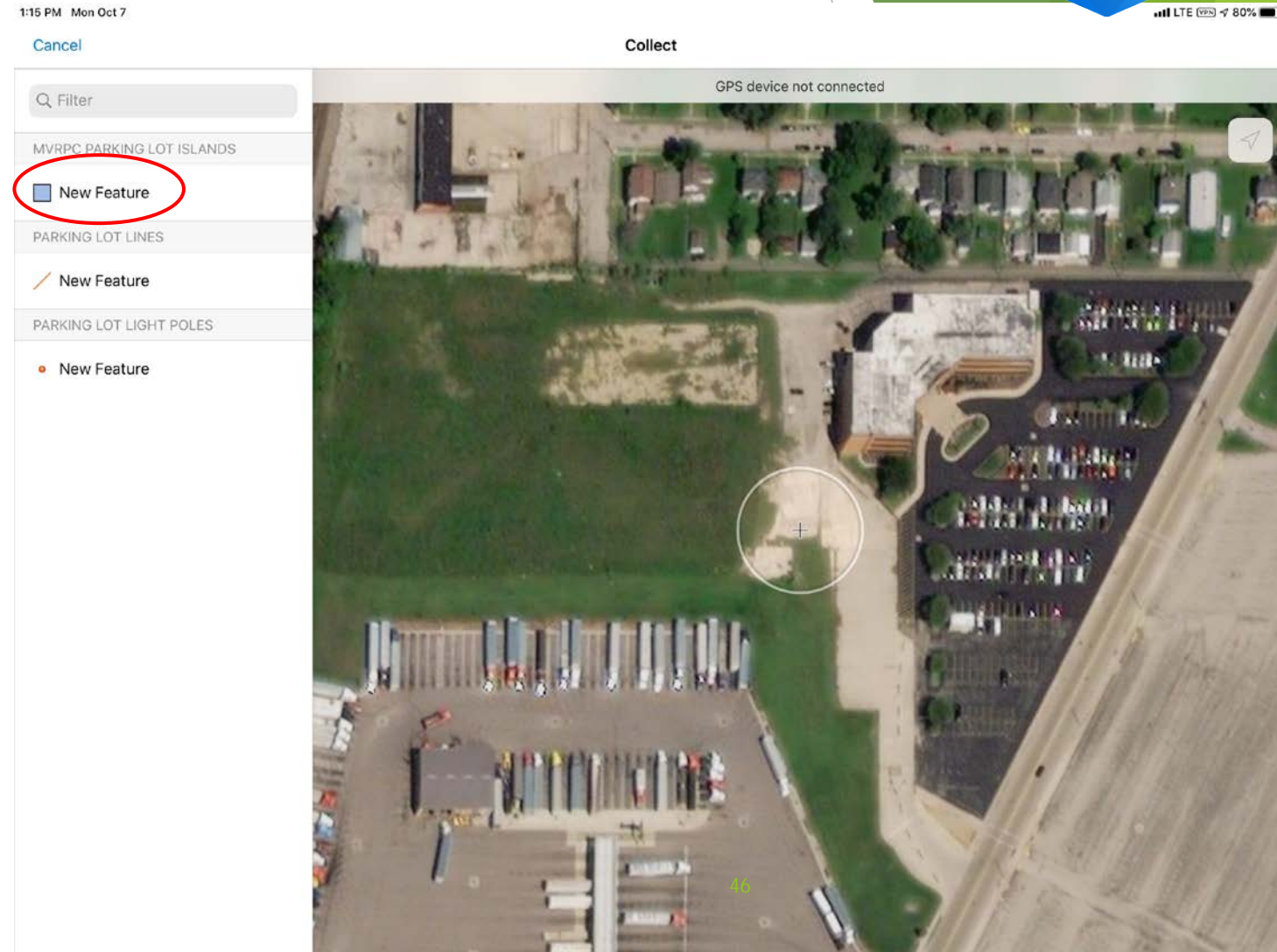
Building a Field Maps Map - ArcGIS Online



► 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



Building a Field Maps Map - ArcGIS Online



► Field Maps

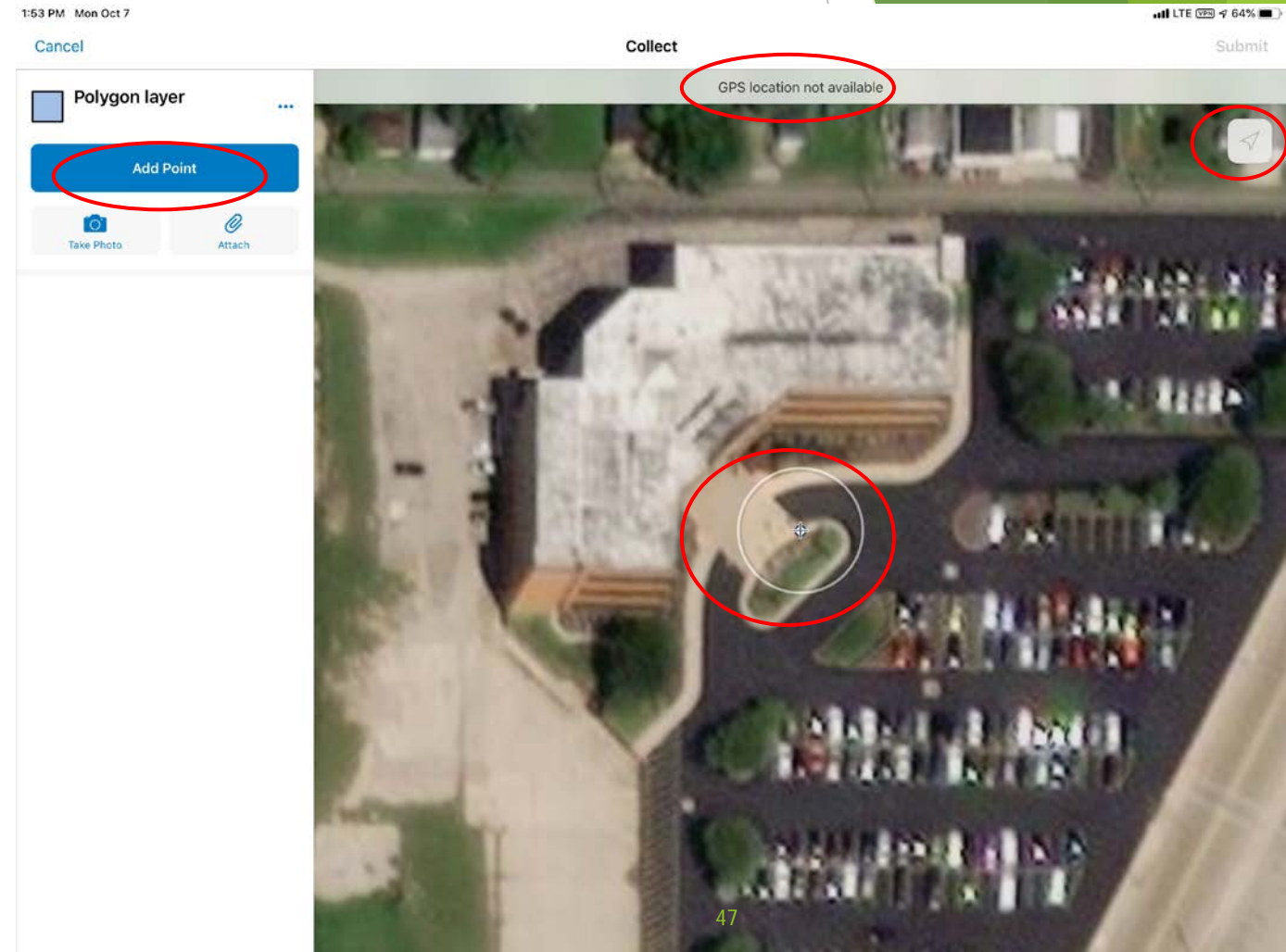
► Create a new Polygon

► 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



Building a Field Maps Map - ArcGIS Online

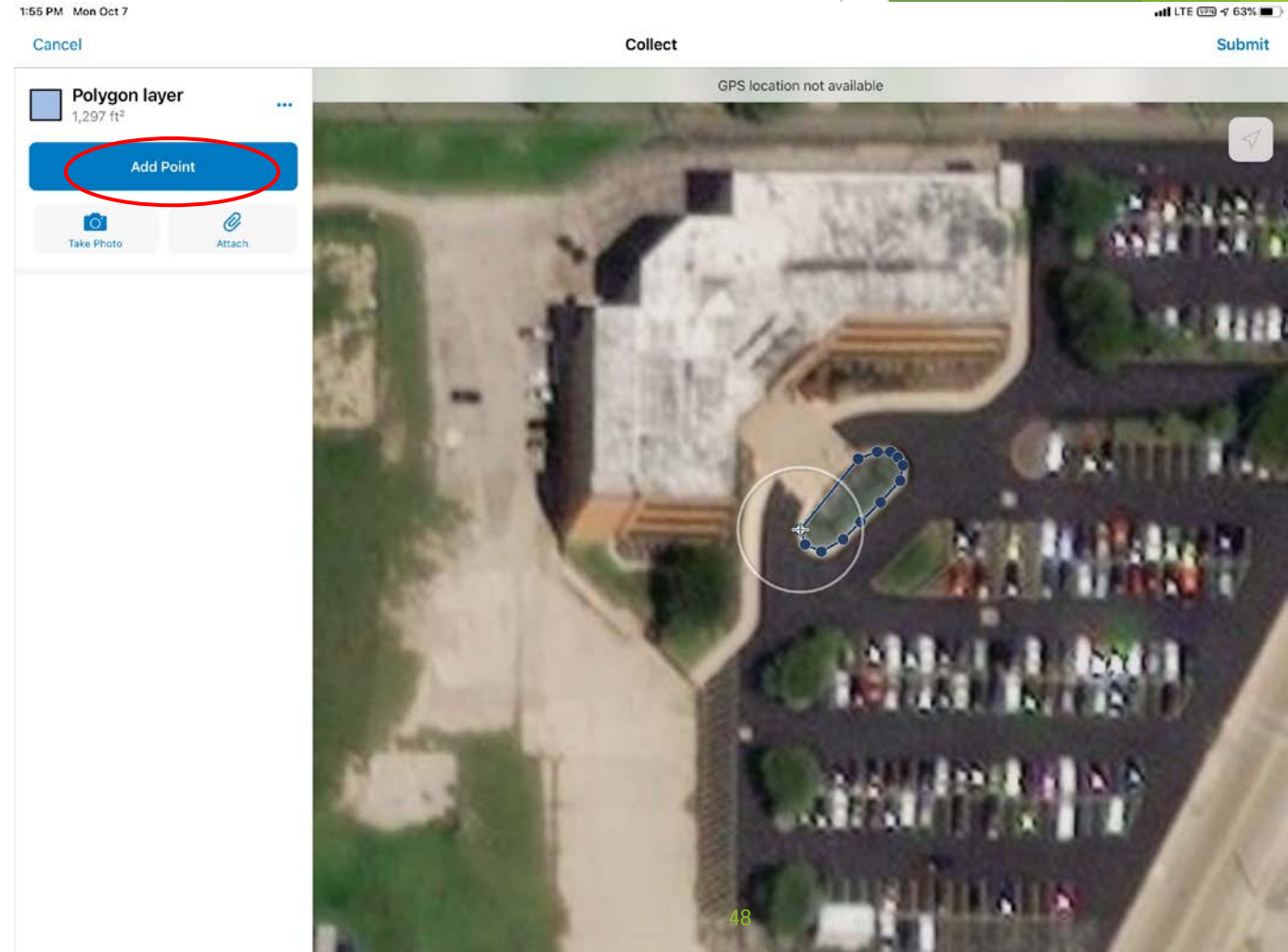


► Field Maps

► 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



Building a Field Maps Map - ArcGIS Online



► Field Maps

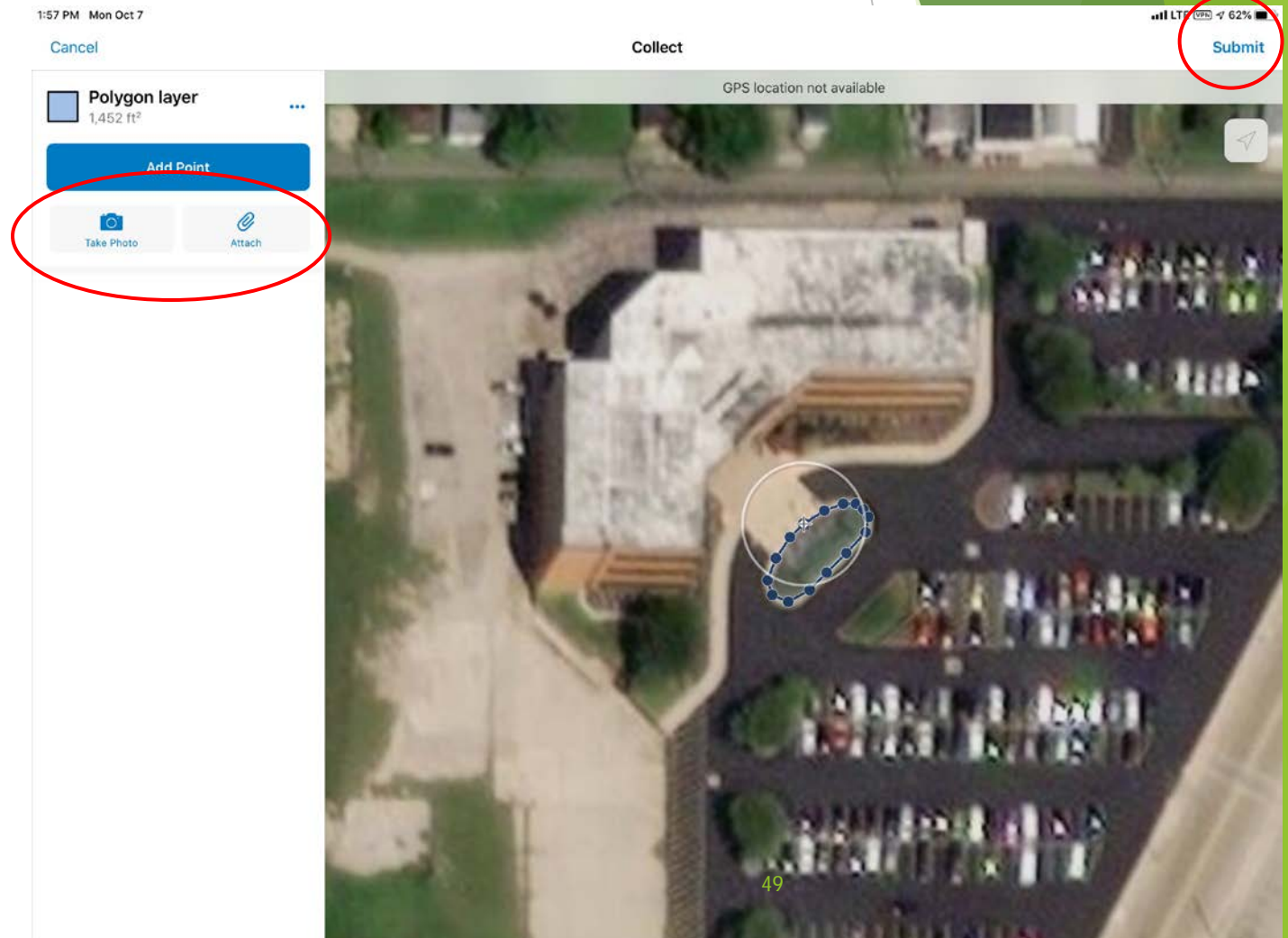
► Create a new Polygon

► Fill in the form

► Photo

► Attach

► Once Form is complete Press Submit



Building a Field Maps Map - ArcGIS Online



► Field Maps

► Create a new Polygon

► Select an existing Polygon

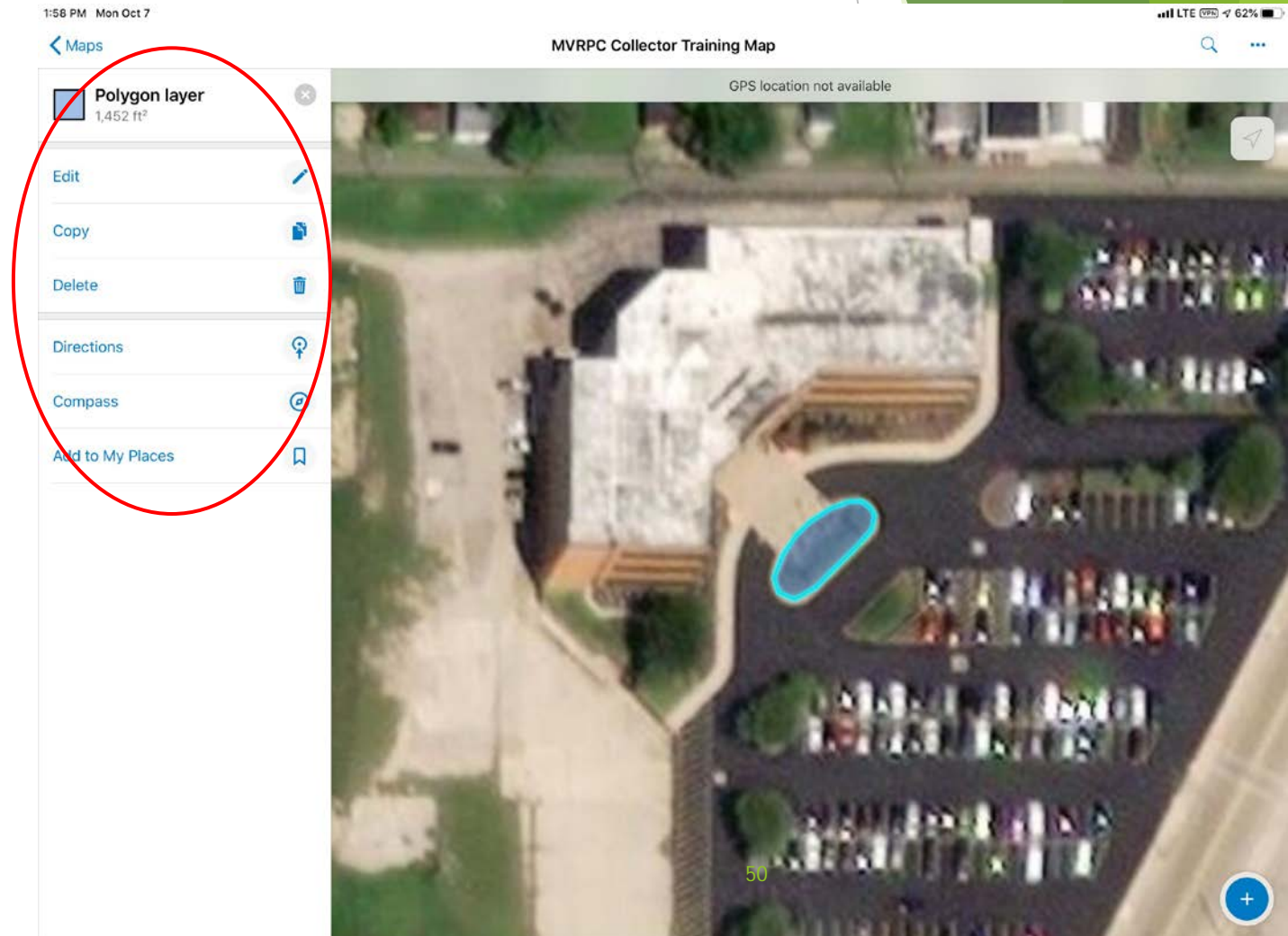
► Completed Polygon

► Edits

► Data

► Similar edits as point and line

► Click Maps to return to main screen



Building a Field Maps Map - ArcGIS Online



► Field Maps

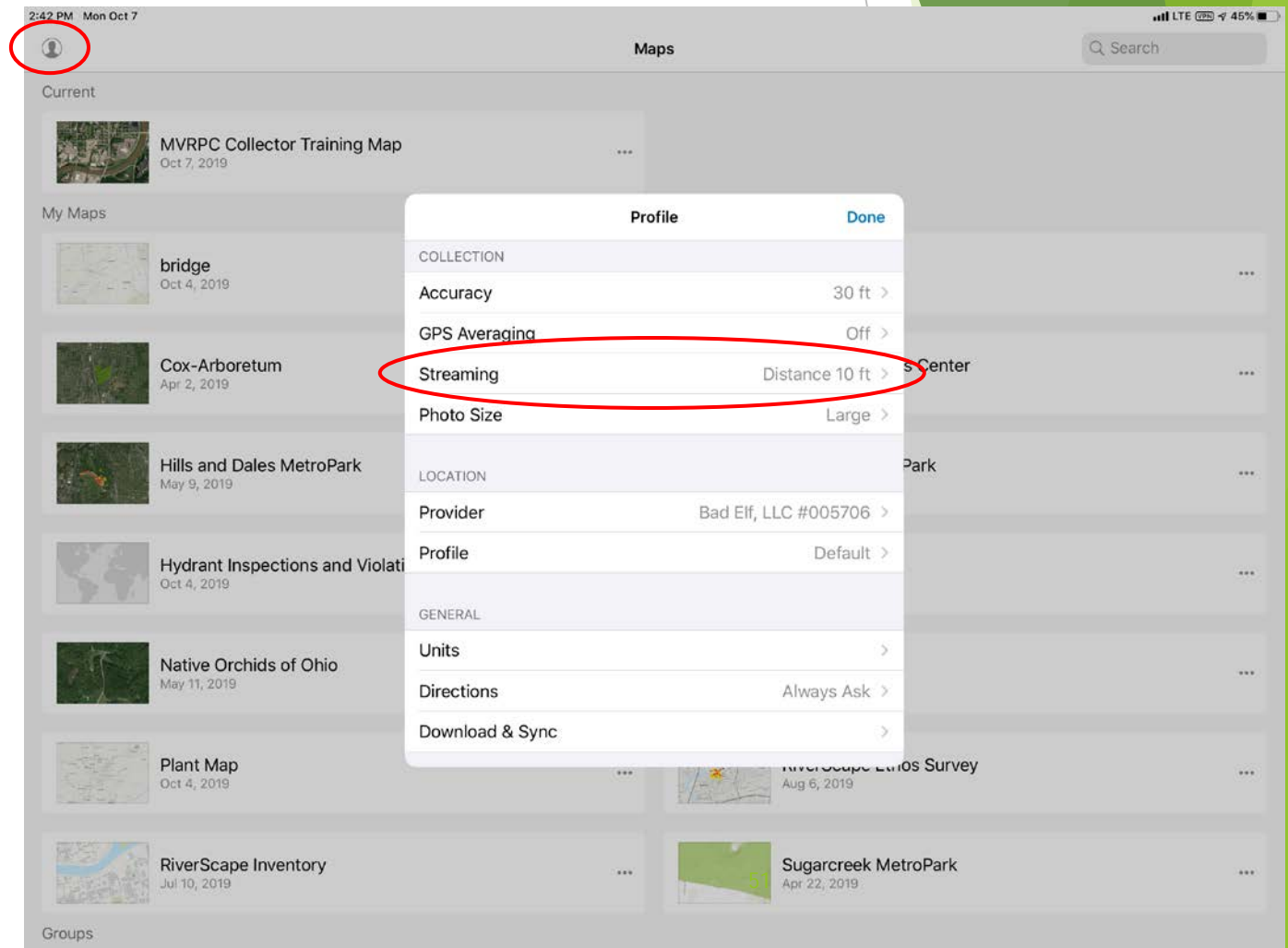
► Create new Lines or Polygons using Streaming

► Field Maps Settings

► Click setting menu

► Click Streaming

► Set by time or distance

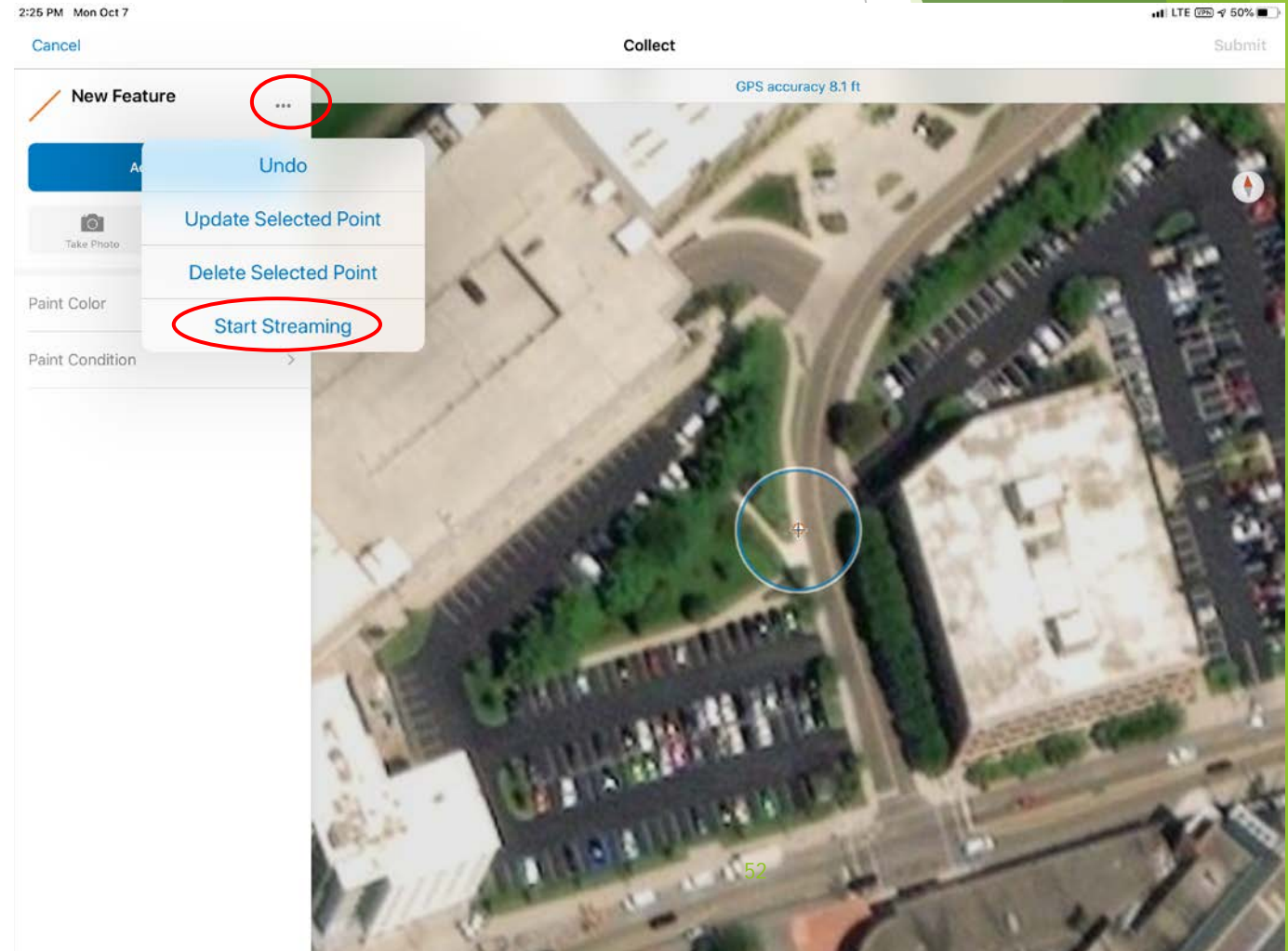


Building a Field Maps Map - ArcGIS Online



► 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



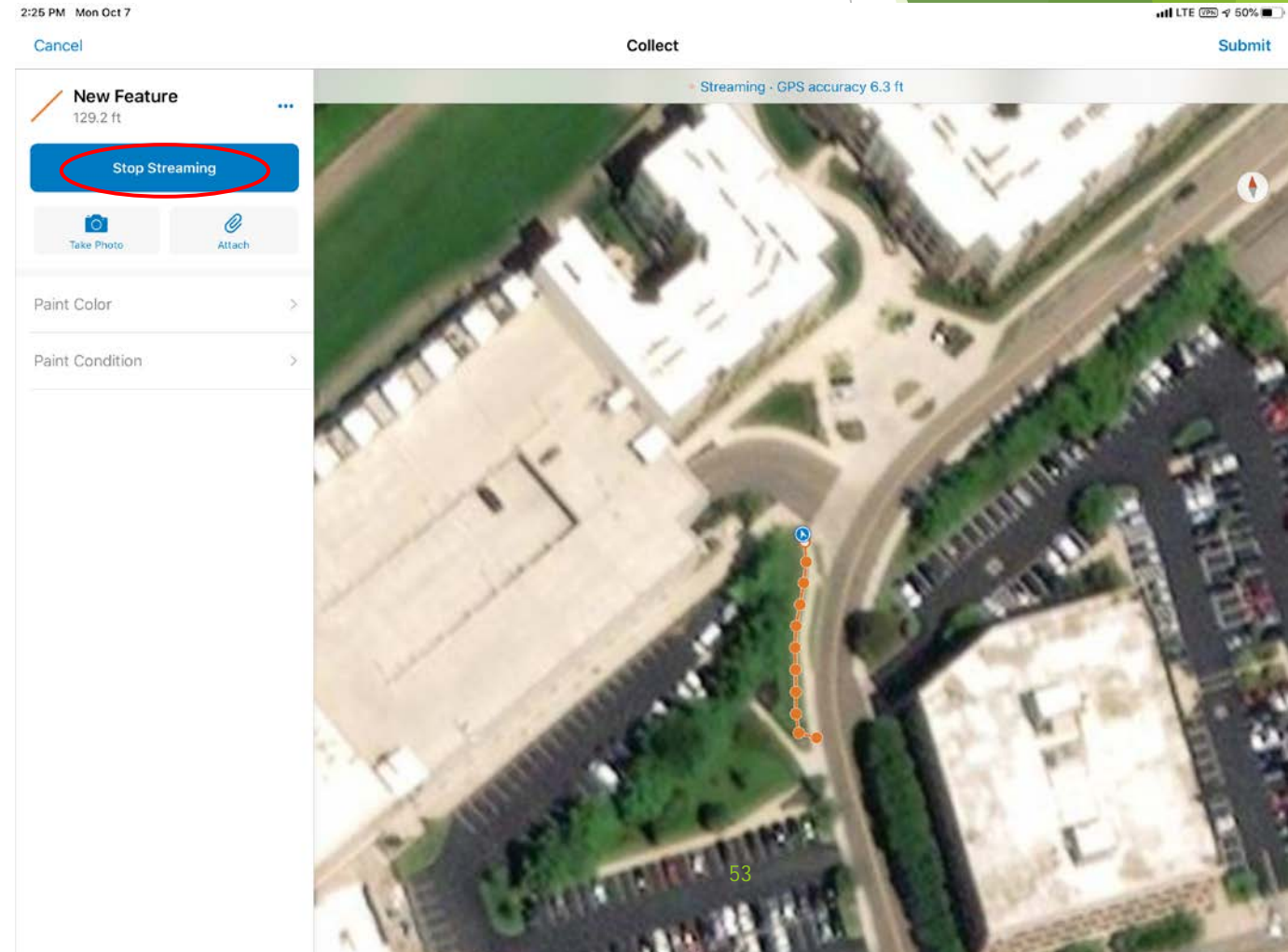
Building a Field Maps Map - ArcGIS Online



► 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



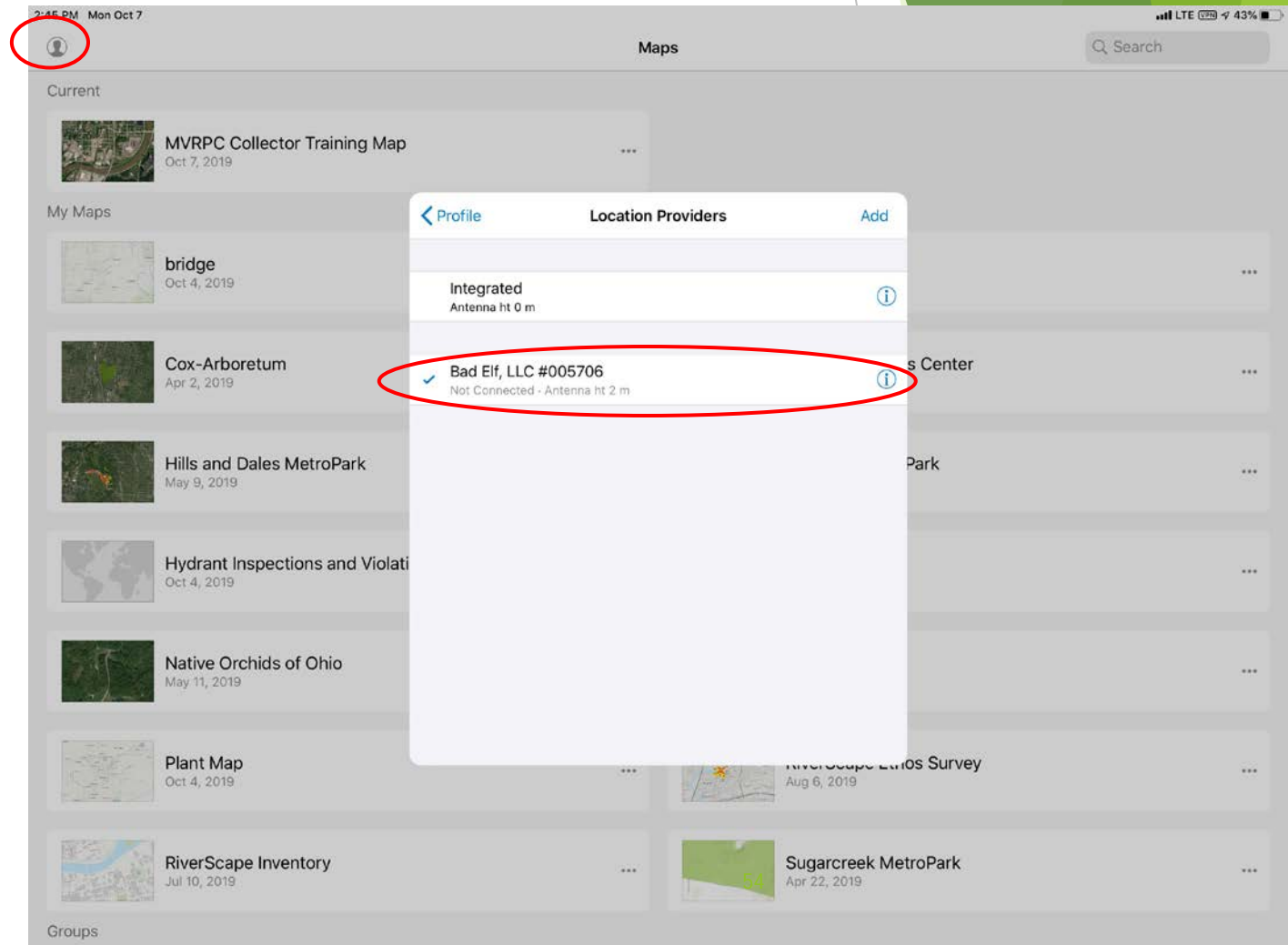
Building a Field Maps Map - ArcGIS Online



► Field Maps

► Field Work

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



Building a Field Maps Map - ArcGIS Online



- Add On External Equipment

Building a Field Maps Map - ArcGIS Online



- ▶ 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

Building a Field Maps Map - ArcGIS Online



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

Building a Field Maps Map - ArcGIS Online



► 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

The screenshot shows the ArcGIS Online web interface. The 'Content' tab is selected in the top navigation bar. In the 'My Content' section, a table lists items. The item 'Parking Lot Light Poles' is highlighted with a red circle. Below this, the 'Overview' tab for the 'Parking Lot Light Poles' item is shown. A red circle highlights the 'Open in Map Viewer' button in the 'Open in Map Viewer' section. The interface includes a left sidebar with 'Folders' and 'Filters', and a main content area with a map thumbnail, description, layers, and terms of use.

Building a Field Maps Map - ArcGIS Online



► Field Maps Data in ArcGIS Online

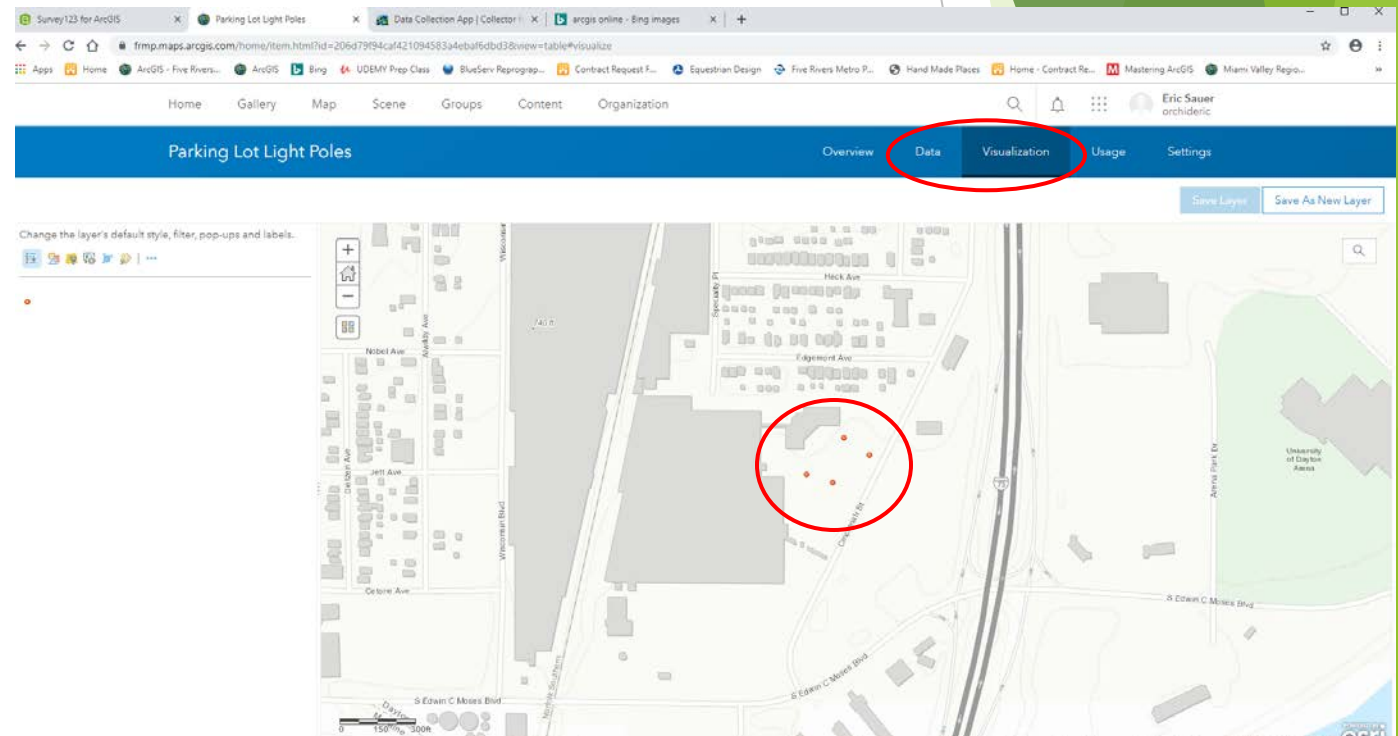
► ArcGIS Online

► Click Data tab

- Shows each collected feature

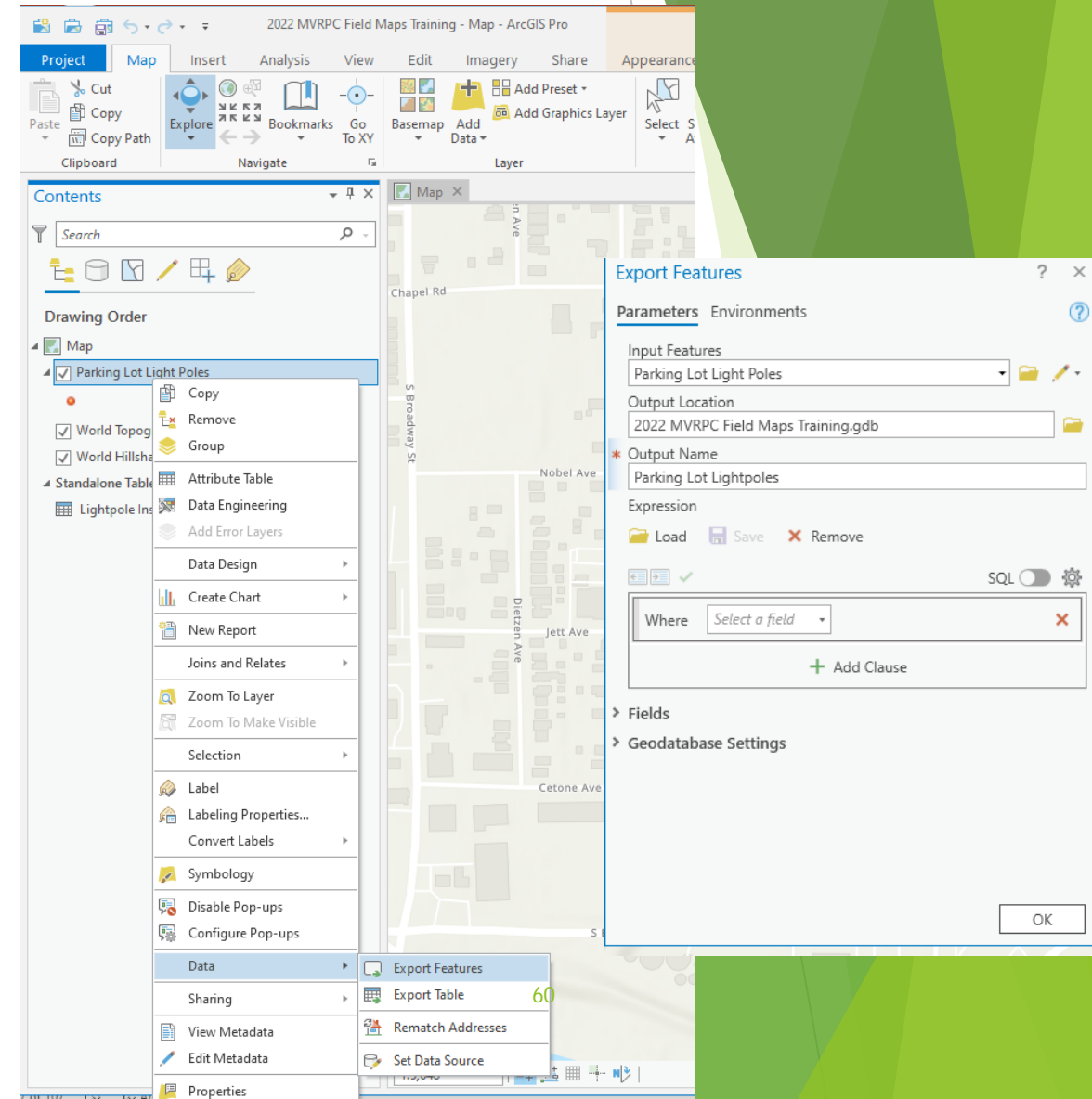
► Click Visualization tab

- Shows each feature on map



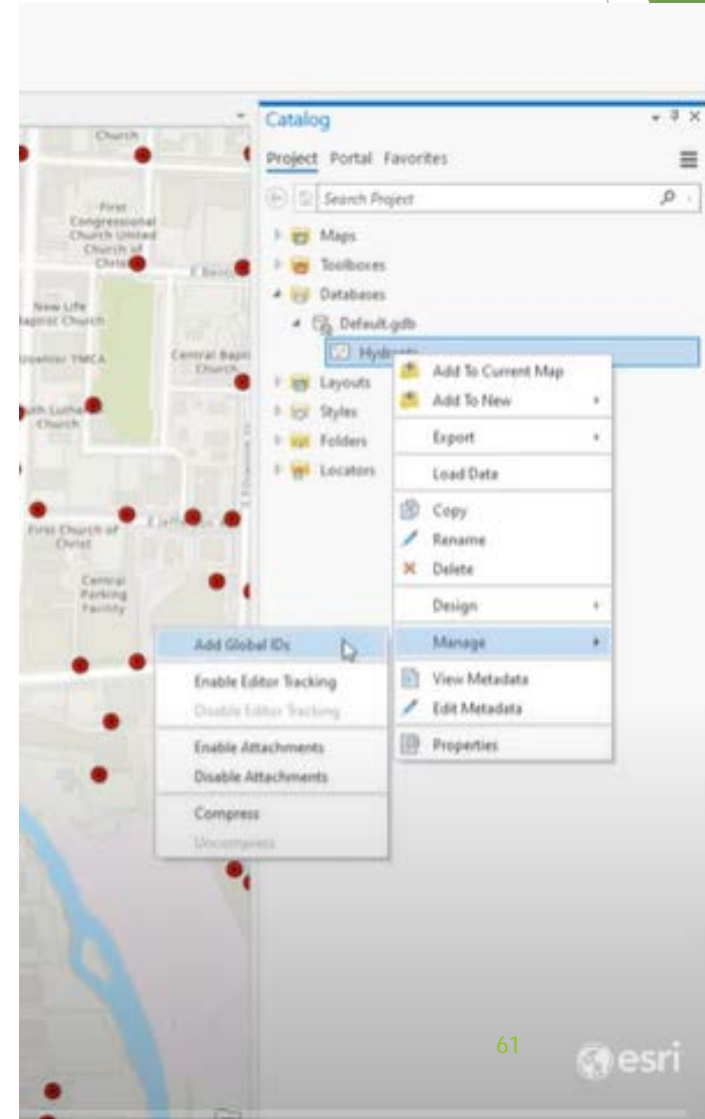
Building an Inspection Process - Field Maps

- ▶ Search ArcGIS Online for 'Parking lot lightpole Inspections' and click 'Export'. Choose to a FGDB.
- ▶ Go to the new FGDB's Content page, and click 'Publish'. This creates your own Hosted Feature Layer
- ▶ *(Optional)* Open ArcGIS Pro
 - ▶ Create a new Map
 - ▶ Add Layer with data to be inspected from ArcGIS Online
 - ▶ Add the Parking Lot Light poles Layer
 - ▶ Export the Layer
 - ▶ Layer must be in the Project Geodatabase
 - ▶ Right click the layer name and select Data and Export Features
 - ▶ Complete Fields and click OK



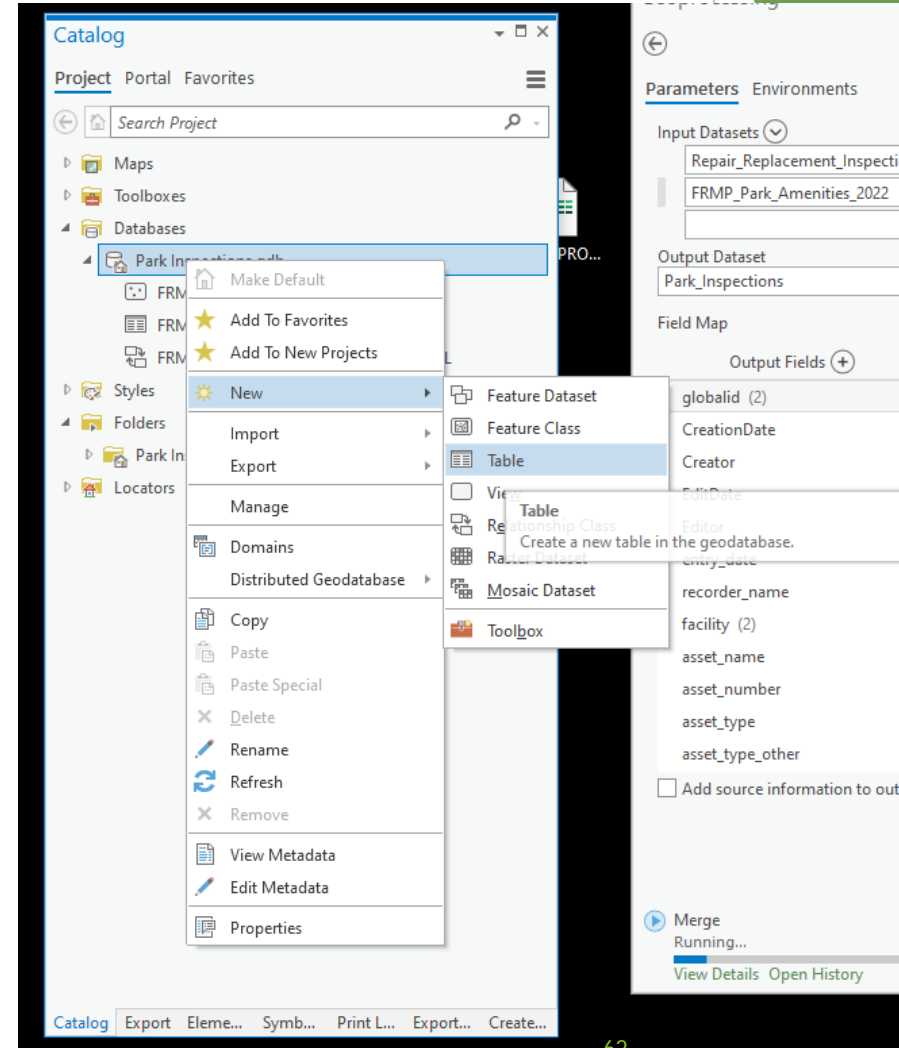
Building an Inspection Process - Field Maps

- ▶ Open ArcGIS Pro
- ▶ Ensure layer has a Global ID Field
 - ▶ Open the Attribute Table and ensure GlobalID Field is present
 - ▶ If it is not:
 - ▶ Right click layer in Catalog with Geodatabase
 - ▶ Select Manage
 - ▶ Add Global ID's



Building an Inspection Process - Field Maps

- ▶ Create the Inspection Table
 - ▶ Right Click on the Geodatabase title
 - ▶ Click New
 - ▶ Click New Table



Building an Inspection Process - Field Maps

- ▶ Create the Inspection Table
 - ▶ Define the Table
 - ▶ Click New
 - ▶ Click New Table
 - ▶ Type a Name (NO SPACES!!!)
 - ▶ Click Next
 - ▶ Add Fields (Will not allow Spaces)
 - ▶ Select Data Type
 - ▶ Add GlobalID Field (Global ID Data Type)
 - ▶ Add GUID Field (GUID Data Type)
 - ▶ Click Next
 - ▶ Leave Configuration Keyword as Default
 - ▶ Click Next

The 'Create Table' dialog box is shown in the 'Define' tab. The 'Name' field contains 'Park_Inspections' and the 'Alias' field is empty. A checkbox labeled 'Add output dataset to current map' is checked. At the bottom, there are buttons for 'Previous', 'Next', 'Finish', and 'Cancel'. The page indicator shows 'Page 1/3'.

Create Table

Define

Name: Park_Inspections

Alias:

☒ Add output dataset to current map

Page 1/3

Previous Next Finish Cancel

Cata... Export Elem... Crea... Sym... Print... Expo... Crea...

The 'Create Table' dialog box is shown in the 'Fields' tab. It features a table with 'Field Name' and 'Data Type' columns. The 'GUID' field is selected. Below the table is a 'Field Properties' section with an 'Alias' field. At the bottom, there are buttons for 'Previous', 'Next', 'Finish', and 'Cancel'. The page indicator shows 'Page 2/3'.

Create Table

Fields

Import Delete

Field Name	Data Type
Benches	Text
BridgesBoardwalksStepsPiers	Text
Cemetery	Text
KiosksBrochureBoxes	Text
Levees	Text
ParkingLotsRoadways	Text
PondLakeRiverEdges	Text
PublicUseAreas	Text
Restrooms	Text
Shelters	Text
Signage	Text
Trails	Text
TrashRecyclingContainers	Text
TreesShrubsTurf	Text
WalkwaysSidewalks	Text
WaterFountainsHydrants	Text
GlobalID	Global ID
GUID	GUID

Click here to add a new field

Click any field above to see its properties.

Field Properties

Alias:

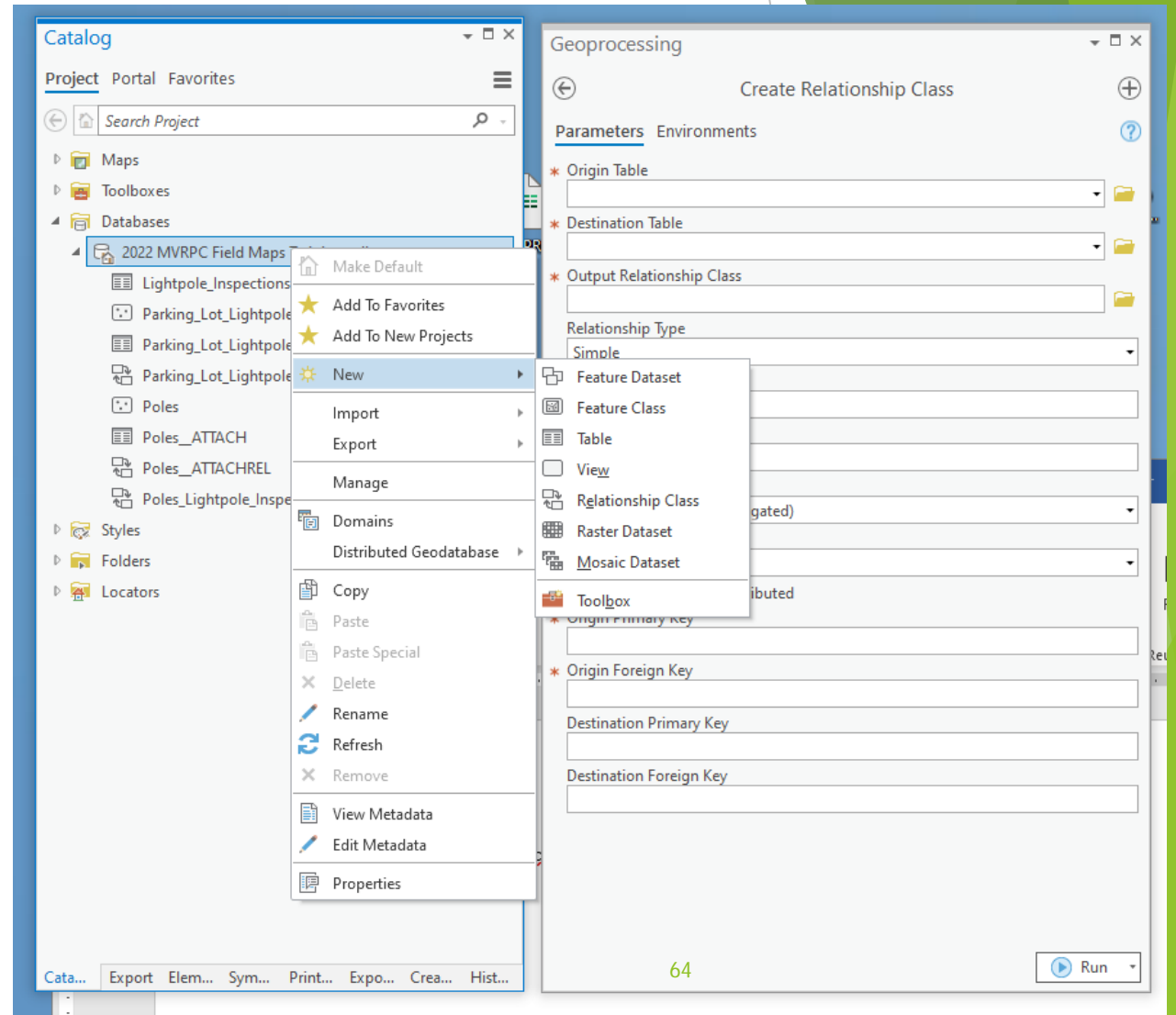
Page 2/3

Previous Next Finish Cancel

Cata... Export Elem... Crea... Sym... Print... Expo... Crea...

Building an Inspection Process - Field Maps

- ▶ Create a Relationship Class
 - ▶ Create the Relationship Class
 - ▶ Right click on the Geodatabase in Catalog
 - ▶ Click New
 - ▶ Click Relationship Class
 - ▶ This joins the feature layer to the inspection table

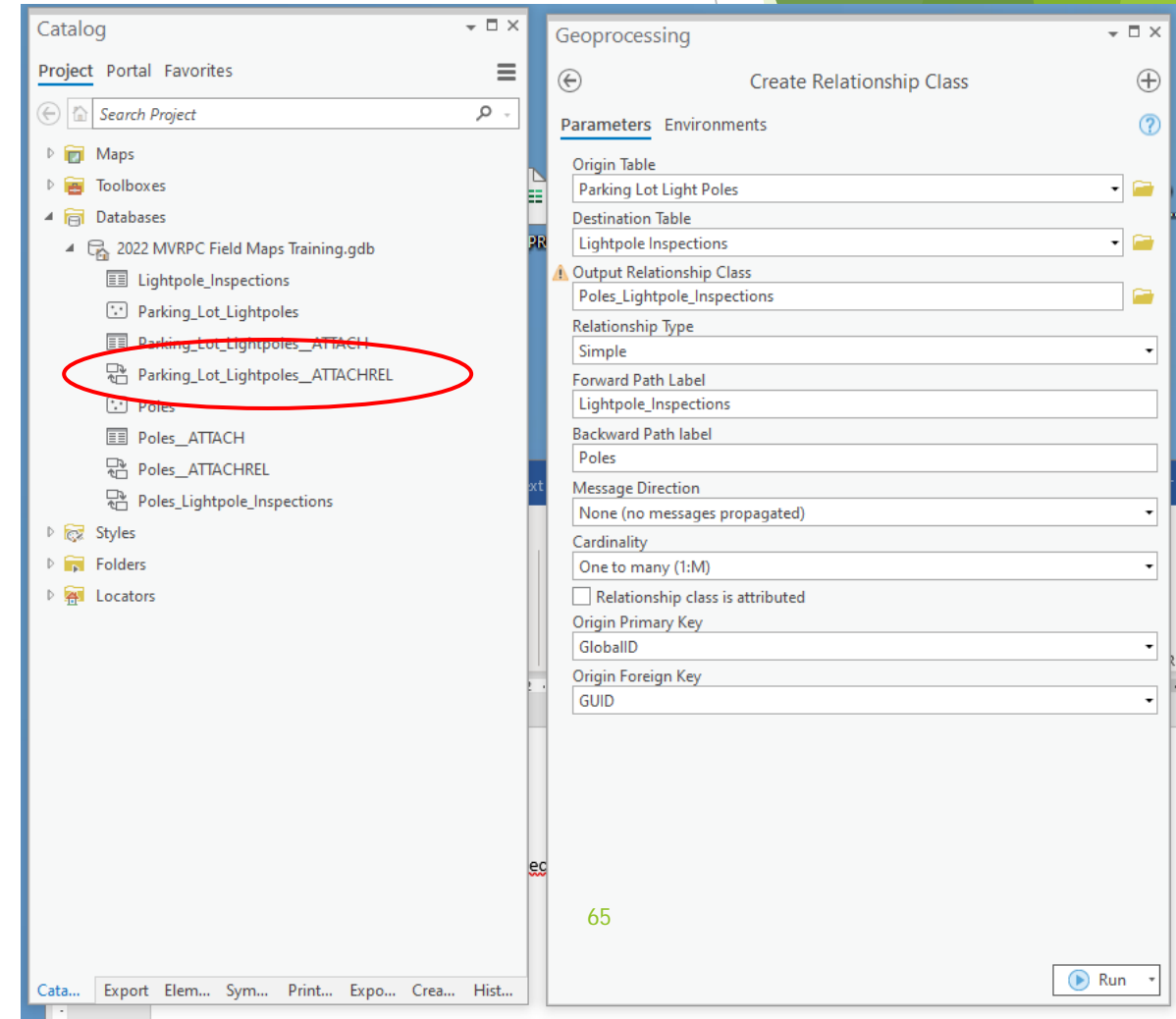


Building an Inspection Process - Field Maps

► Create a Relationship Class

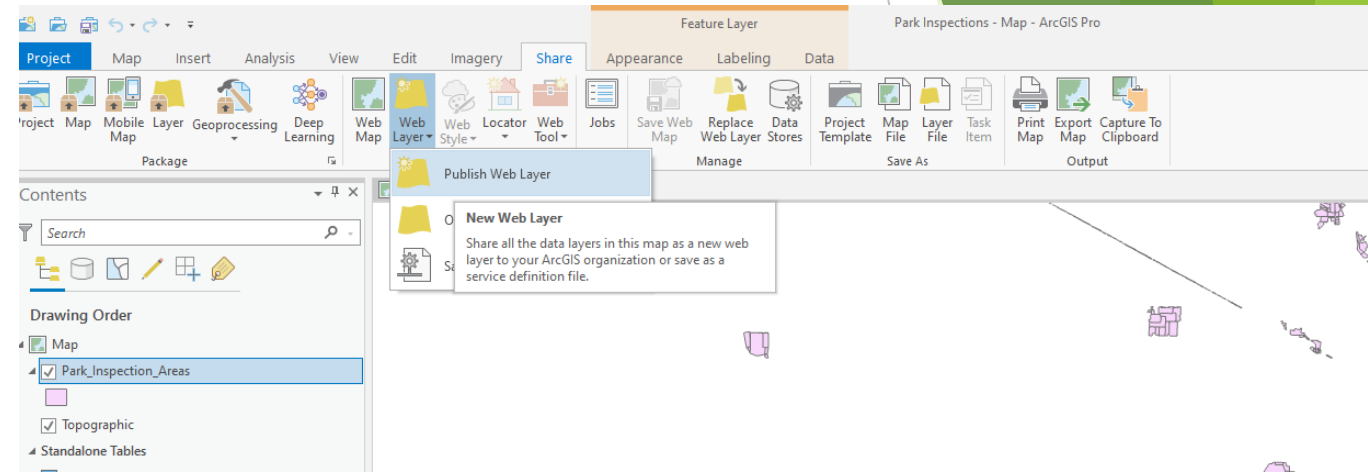
► Complete Fields

- Origin Table- Select what is being inspected
- Destination Table- Select the table that was created
- Cardinality- One to Many- Allows multiple inspections for one element
- Origin Primary Key- Global ID
- Origin Foreign Key- GUID
- Click Run
- Results in two Squares in the Geodatabase



Building an Inspection Process - Field Maps

- ▶ Publish the layers to ArcGIS Online
 - ▶ Publish the Layer to Online Account
 - ▶ Make sure to be signed into account
 - ▶ Click Share Tab
 - ▶ Click Web Layer
 - ▶ Click Publish Web Layer



Building an Inspection Process - Field Maps

- ▶ Publish the layers to ArcGIS Online
 - ▶ Publish the Layer to Online Account
 - ▶ Complete the Share Map as a Web Layer Dialog Box
 - ▶ Add a Name
 - ▶ Add a Summary
 - ▶ Add Tags
 - ▶ Create a new Folder
 - ▶ Sharing can be done now or later
 - ▶ Click Publish

The screenshot shows the 'Share As Web Layer' dialog box with the following details:

- Title:** Sharing Map As A Web Layer
- Tabs:** General, Configuration, Content (General is selected)
- Item Details:**
 - Name:** Parking Lot Light Inspections
 - Summary:** MVRPC Training for Field Maps
 - Tags:** MVRPC, FRMP, Add Tag(s)
- Layer Type:**
 - Feature (selected)
 - Tile
 - Vector Tile
 - Feature (checked)
- Location:**
 - Folder:** 2022 Field Map Training
- Share with:**
 - Everyone (checked)
 - Five Rivers MetroParks (checked)
 - Groups (dropdown)
- Finish Sharing:**
 - Analyze (checked)
 - Publish (dropdown)
 - Jobs

At the bottom, a menu bar is visible with options: Cat..., Exp..., Sha..., Ele..., Sy..., Prin..., Exp..., Cre..., Hist... The number 67 is displayed above the 'Sha...' option.

Building an Inspection Process - Field Maps

- ▶ Sign Into ArcGIS Online
- ▶ Locate the Layer that was just published
- ▶ Click on the Feature Layer to open the Layer's Window

The screenshot displays the ArcGIS Online interface. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The 'Content' tab is selected, showing a list of items under the '2022 Field Map Training' folder. The folder is highlighted in the left sidebar. The main content area shows a table of items, with the 'Parking Lot Lightpole Inspections' feature layer circled in red. The table has columns for Title, Type, and Modified date.

Title	Type	Modified
Parking Lot Lightpole Inspections	Feature Layer (hosted)	Oct 31, 2022
Parking Lot Lightpole Inspections	Service Definition	Oct 31, 2022

Building an Inspection Process - Field Maps

- Ensure the Layer is editable!
 - Click on Settings

The screenshot displays the ArcGIS web interface. At the top, a navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. A user profile for Eric Sauer (orchideric) is visible in the top right. Below the navigation bar, a blue header bar shows the layer name 'Parking Lot Lightpole Inspections' and tabs for Overview, Data, Visualization, Usage, and Settings. The 'Settings' tab is highlighted with a red circle. The main content area is divided into several sections: a thumbnail map with an 'Add to Favorites' button; a description section with a placeholder text 'Add an in-depth description of the item.'; a layers section showing 'Parking Lot Light Poles' as a 'Point layer'; a tables section showing 'Lightpole Inspections' as a 'Table'; and a terms of use section. On the right side, a vertical menu contains buttons for 'Open in Map Viewer', 'Open in Scene Viewer', 'Open in ArcGIS Desktop', 'Publish', 'Create View Layer', 'Export Data', 'Update Data', 'Share', and 'Metadata'. Below this menu, the 'Item Information' section shows a progress bar from 'Low' to 'High' and a 'Top Improvement' section with a link to 'Add a longer summary'. The 'Details' section at the bottom indicates the source is 'Feature Service' and was created from 'Parking Lot Lightpole Inspections'.

Building an Inspection Process - Field Maps

- ▶ Ensure the Layer is editable!
 - ▶ Click on Settings
 - ▶ Check the Editing Section
- ▶ Once settings are set, click Overview to return to main page

Feature Layer (hosted)

Editing

☒ Enable editing

☐ Keep track of changes to the data (add, update, delete features). [Manage change log](#)

☐ Keep track of who edited the data (editor name, date and time).

☒ Enable Sync (required for offline use and collaboration).

• Who can edit features?

Share the layer to specific groups of people, the organization or publicly via the Share button on the Overview tab. This layer is currently shared with: Everyone (public)

• What kind of editing is allowed?

☒ Add

☒ Delete

☒ Update

☐ Attributes only

☒ Attributes and geometry

[Manage geometry updates](#)

• What features can editors see?

☒ Editors can see all features

☐ Editors can only see their own features (requires editor tracking)

☐ Editors can't see any features, even those they add

• What features can editors edit?

☒ Editors can edit all features

☐ Editors can only edit their own features (requires editor tracking)

• What access do anonymous editors (not signed in) have?

☒ The same as signed in editors

Building an Inspection Process - Field Maps

► Edit the Data Fields for the Inspections

► Click on the Table Name

The screenshot shows the ArcGIS Online interface for a feature layer named "Parking Lot Lightpole Inspections". The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The user profile "Eric Sauer orchideric" is visible in the top right. The main content area is divided into several sections:

- Overview:** Contains a thumbnail map, the title "Parking Lot Lightpole Inspections", and metadata: "Feature Layer (hosted) by orchideric", "Created: Oct 31, 2022", "Updated: Oct 31, 2022", and "View Count: 0".
- Description:** A section for adding an in-depth description of the item.
- Layers:** Lists the "Parking Lot Light Poles" as a "Point layer".
- Tables:** A section containing a table named "Lightpole Inspections". This table name is circled in red in the original image.
- Item Information:** A section showing a progress bar from "Low" to "High" and a "Top Improvement" section with a link to "Add a longer summary".
- Details:** A section showing the source as "Feature Service" and the creation source as "Parking Lot Lightpole Inspections".

On the right side of the interface, there is a vertical menu with various actions: "Open in Map Viewer", "Open in Scene Viewer", "Open in ArcGIS Desktop", "Publish", "Create View Layer", "Export Data", "Update Data", "Share", and "Metadata".

Building an Inspection Process - Field Maps

- ▶ Edit the Data Fields for the Inspections
 - ▶ Click the Enable Attachments Tab
 - ▶ This allows Photos to be added to the inspections
 - ▶ Click Data Tab

The screenshot displays the ArcGIS Field Maps web interface. At the top, a navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The user profile 'Eric Sauer orchideric' is visible in the top right. Below the navigation bar, a breadcrumb trail shows '← Parking Lot Lightpole Inspections / Lightpole Inspections'. A blue header bar contains three tabs: 'Overview', 'Data' (which is circled in red), and 'Visualization'. On the left side, under the 'Table' view, the user 'orchideric' is listed, along with the text 'Data Last Updated: Oct 31, 2022, 3:59 PM'. Below this, sections for 'Summary' (stating 'A summary of the layer is not available.'), 'Description' (with a link to 'Add a short description for this layer.'), and 'Credits (Attribution)' (with a link to 'Acknowledge this layers's source.') are visible. On the right side, a panel contains several buttons: 'Open in Map Viewer', 'Export Data', 'Create View Layer', 'Append Data to Layer', and 'Metadata'. Below these buttons, there is a section for 'URL' with a text input field containing 'https://services8.arcgis.com/pX44G7gzo...' and a 'View' button. At the bottom of this panel, the 'Attachments' section is highlighted with a red circle, showing a toggle switch labeled 'Enable Attachments' which is currently turned on.

Building an Inspection Process - Field Maps

- ▶ Edit the Data Fields for the Inspections

- ▶ Click the Fields Tab

- ▶ Click Add Button

The screenshot shows the Microsoft Dynamics 365 interface for 'Parking Lot Lightpole Inspections'. The top navigation bar includes 'Home', 'Gallery', 'Map', 'Scene', 'Groups', 'Content', and 'Organization'. The user is 'Eric Sauer' (orchideric). The main navigation bar has 'Overview', 'Data', and 'Visualization' tabs. The 'Data' tab is selected, and the 'Fields' sub-tab is also selected and circled in red. Below the navigation bar, there is a '+ Add' button circled in red. To the right of the '+ Add' button is a search bar labeled 'Search Fields'. Below the search bar, there is a table with 7 columns: 'Display Name', 'Field Name', and 'Type'. The table contains 7 rows of data. On the left side of the table, there is a 'Filters' section with a 'Type' dropdown menu. The 'Type' dropdown menu is expanded, showing options: 'Number', 'String', 'Date', 'ID', 'Attachment', 'Related Table', and 'Field Value Type'. The 'Field Value Type' option is selected. The table data is as follows:

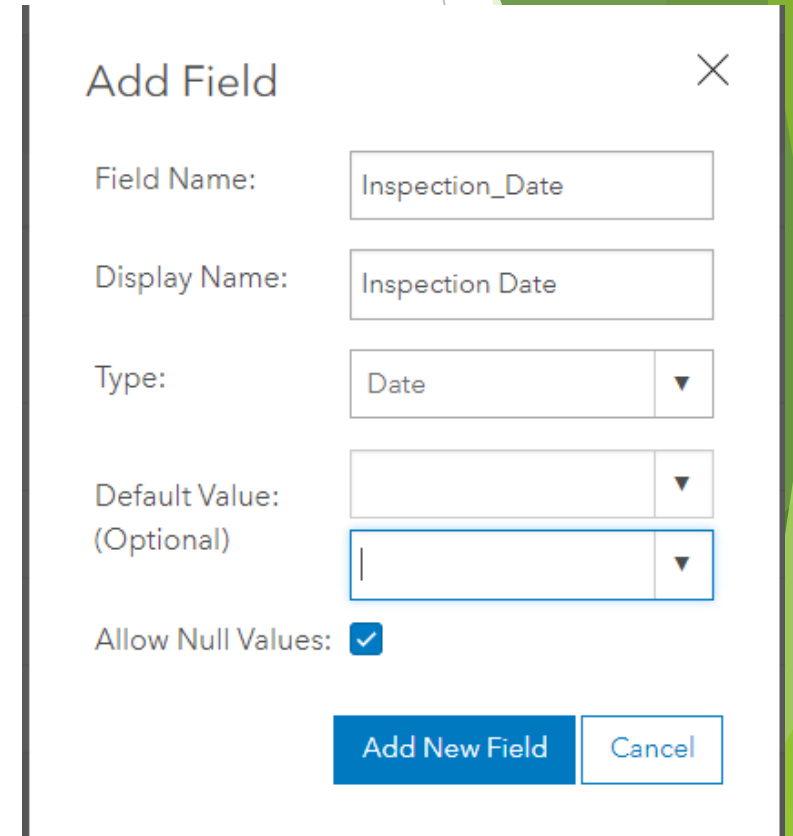
Display Name	Field Name	Type
<input type="checkbox"/> OBJECTID	OBJECTID	ObjectID
<input type="checkbox"/> Inspector	Inspector	String
<input type="checkbox"/> Condition	Condition	String
<input type="checkbox"/> GlobalID	GlobalID	GlobalID
<input type="checkbox"/> GUID	GUID	GUID
<input type="checkbox"/> Photos And Files	Photos And Files	Attachment
<input type="checkbox"/> Poles	Poles	Related

Building an Inspection Process - Field Maps

- ▶ Add Fields

- ▶ Add an Inspection Date

- ▶ Field Name cannot have spaces
 - ▶ Select Date in the Type Drop Down
 - ▶ Click Add New Field



The screenshot shows a 'Add Field' dialog box with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Field Name:** A text input field containing 'Inspection_Date'.
- Display Name:** A text input field containing 'Inspection Date'.
- Type:** A dropdown menu with 'Date' selected and a downward arrow.
- Default Value:** A text input field that is empty.
- (Optional):** A dropdown menu with a downward arrow.
- Allow Null Values:** A checkbox that is checked.
- Buttons:** Two buttons at the bottom right: 'Add New Field' (in blue) and 'Cancel'.

Building an Inspection Process - Field Maps

- ▶ Modify Fields
 - ▶ Click on the Display Name to be modified
 - ▶ Create drop down selections where possible
 - ▶ Click Condition

The screenshot shows the ArcGIS Field Maps interface. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The user is logged in as Eric Sauer (orchideric). The main header shows the breadcrumb path: ← Parking Lot Lightpole Inspections / Lightpole Inspections. Below this, there are tabs for Overview, Data, and Visualization. The 'Fields' tab is active, showing a list of fields for the 'Lightpole Inspections' layer. The 'Condition' field is highlighted with a red circle. The 'Filters' panel on the left shows the 'Type' filter expanded, with options for Number, String, Date, ID, Attachment, and Related Table. The 'Field Value Type' section is also visible.

Display Name	Field Name	Type
<input type="checkbox"/> OBJECTID	OBJECTID	ObjectID
<input type="checkbox"/> Inspector	Inspector	String
<input type="checkbox"/> Condition	Condition	String
<input type="checkbox"/> GlobalID	GlobalID	GlobalID
<input type="checkbox"/> GUID	GUID	GUID
<input type="checkbox"/> Inspection Date	Inspection_Date	Date
<input type="checkbox"/> Photos And Files	Photos And Files	Attachment
<input type="checkbox"/> Poles	Poles	Related

Building an Inspection Process - Field Maps

- ▶ Modify Fields
 - ▶ Click Create List

The screenshot displays the ArcGIS Field Maps web application interface. At the top, a navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. A search bar and user profile (Eric Sauer) are also present. Below this, a breadcrumb trail shows the path: ← Parking Lot Lightpole Inspections / Lightpole Inspections. To the right of the breadcrumb are tabs for Overview, Data, and Visualization. Further right are buttons for Table and Fields. The main content area is divided into two panels. The left panel, titled 'Search Fields', lists several fields: OBJECTID, Inspector, Condition (which is selected and highlighted in blue), GlobalID, GUID, and Inspection Date. The right panel, titled 'Condition', provides details for the selected field. It includes a description, a field value type (indicated as not available), and a settings table. The 'Create List' button is circled in red in the top right corner of the 'Condition' panel.

Home Gallery Map Scene Groups Content Organization

← Parking Lot Lightpole Inspections / Lightpole Inspections Overview Data Visualization

Table Fields

Search Fields

OBJECTID
Inspector
Condition
GlobalID
GUID
Inspection Date

Condition

Description
A brief summary of the item is not available.

Field Value Type
Field Value type is not available.

Settings

Allows Null Values	Yes	
Editable	Yes	Edit
Default Value	None	
Length	255	
Unique	No	Edit




76

Create List
Delete




Details
Type: String
Name: Condition

Building an Inspection Process - Field Maps

- ▶ Create Choices for Drop Down
 - ▶ Create Labels
 - ▶ Create Code (or copy label)
 - ▶ Options can be re-ordered here
 - ▶ Options can be modified here
- ▶ Click Save when done

Label	Code
<input type="text" value="Meets Standards"/>	<input type="text" value="Meets Standards"/> 
<input type="text" value="Needs Attention"/>	<input type="text" value="Needs Attention"/> 
<input type="text" value="Needs to be Replaced"/>	<input type="text" value="Needs to be Replaced"/> 
+ Add	

List of Values: Condition

Label	Code
<input type="text" value="Meets Standards"/>	<input type="text" value="Meets Standards"/> 
<input type="text" value="Needs Attention"/>	<input type="text" value="Needs Attention"/> 
<input type="text" value="Needs to be Replaced"/>	<input type="text" value="Needs to be Replaced"/> 
+ Add	

Create the list of values for this field by entering attribute values one at a time or by generating the list from the current attribute values in the layer.

Add, edit, reorder, and delete items in the list. The Label is the displayed value and can be any text. The Code is the value stored in the database and must match the field type.

[Generate List](#) [Save](#) [Cancel](#)

Building an Inspection Process - Field Maps

- ▶ Confirm Drop Down Choices and Order
 - ▶ Click Edit if needed to make changes
 - ▶ Click X to return to fields view

Table Fields

Search Fields

OBJECTID

Inspector

Condition

GlobalID

GUID

Inspection Date

Condition

Description

A brief summary of the item is not available.

Field Value Type

Field Value type is not available.

Settings

Allows Null Values	Yes
Editable	Yes
Default Value	None
Length	255
Unique	No

List of Values (Domain)

Meets Standards
Needs Attention
Needs to be Replaced

78

Details

Type: String

Name: Condition

Edit

Delete

Edit

Edit

Edit

Building an Inspection Process - Field Maps

- ▶ Create a Comment Box
 - ▶ Click Add
 - ▶ Create Comments Field
 - ▶ Length is the number of characters allowed
 - ▶ Click Add New Field when complete

Add Field



Field Name:

Display Name:

Type: ▼

Length:

Default Value:
(Optional)

Allow Null Values: ☒

Home Gallery Map Scene Groups Content Organization

← Parking Lot Lightpole Inspections / Lightpole Inspections

Overview Data Visualization

Table Fields

Search Fields

1 - 8 of 8

Display Name	Field Name	Type
<input type="checkbox"/> OBJECTID	OBJECTID	ObjectID
<input type="checkbox"/> Inspector	Inspector	String
<input type="checkbox"/> Condition	Condition	String
<input type="checkbox"/> GlobalID	GlobalID	GlobalID
<input type="checkbox"/> GUID	GUID	GUID
<input type="checkbox"/> Inspection Date	Inspection_Date	Date
<input type="checkbox"/> Photos And Files	Photos And Files	Attachment
<input type="checkbox"/> Roles	Roles	Related

Building an Inspection Process - Field Maps

- ▶ Return to the Layer Screen
 - ▶ Click Arrow next to the table title

The screenshot shows the ArcGIS web interface for a layer titled "Parking Lot Lightpole Inspections". The breadcrumb navigation at the top of the content area shows "← Parking Lot Lightpole Inspections / Lightpole Inspections", with the back arrow highlighted by a red circle. The page includes a table view, a summary section, a description field, and a credits section. On the right side, there are buttons for "Open in Map Viewer", "Export Data", "Create View Layer", "Append Data to Layer", and "Metadata". Below these, there is a URL field with the text "https://services8.arcgis.com/pX44G7gzoC" and a "View" button. At the bottom right, there is a toggle switch for "Enable Attachments".

Home Gallery Map Scene Groups Content Organization

← Parking Lot Lightpole Inspections / Lightpole Inspections

Overview Data Visualization

Open in Map Viewer

Export Data

Create View Layer

Append Data to Layer

Metadata

Table

orchideric

Data Last Updated: Oct 31, 2022, 4:06 PM

Summary

A summary of the layer is not available.

Description

Add a short description for this layer.

Credits (Attribution)

Acknowledge this layers's source.

Edit

URL

View

https://services8.arcgis.com/pX44G7gzoC

Attachments

Enable Attachments

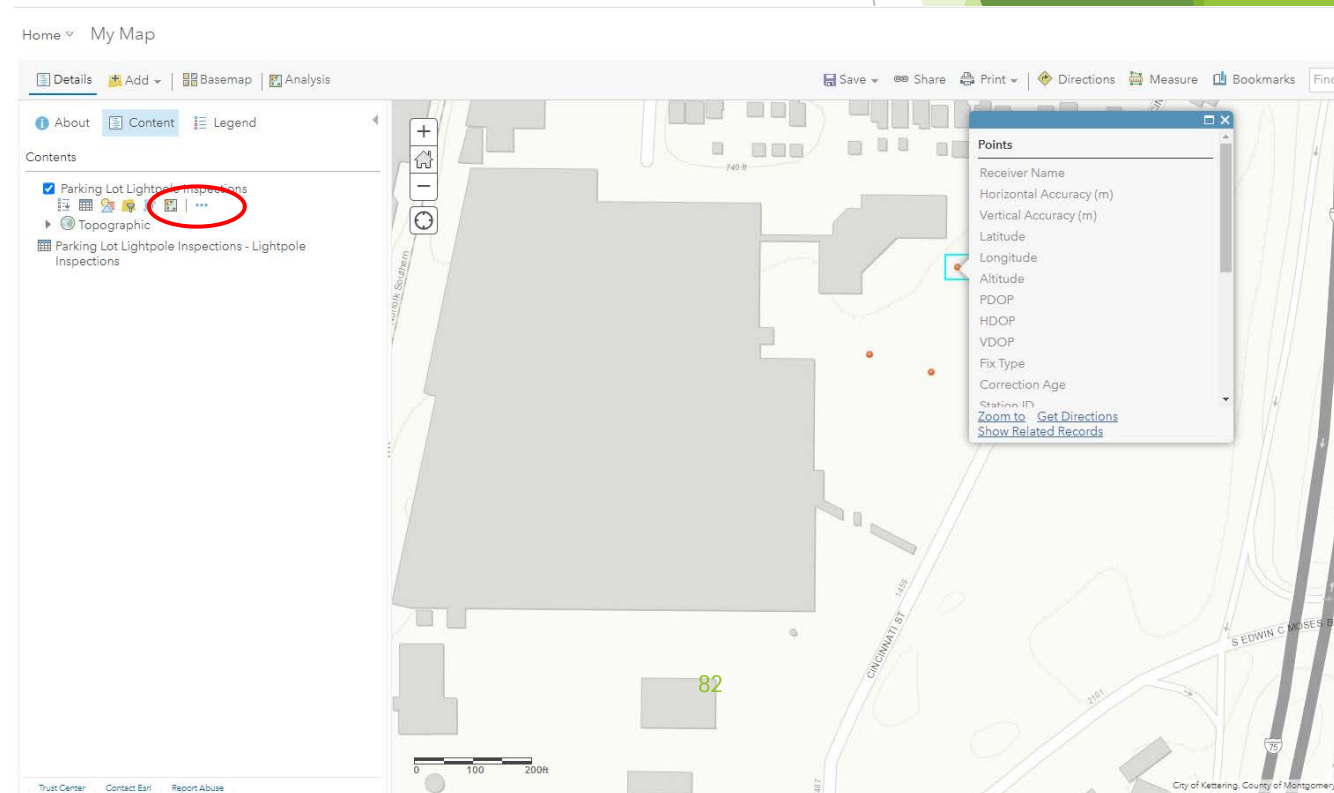
Building an Inspection Process - Field Maps

- ▶ Open the layer in a new Map
- ▶ Click Open in Map Viewer Classic from the Open in Map Viewer Drop Down

The screenshot displays the ArcGIS web interface for a layer titled "Parking Lot Lightpole Inspections". The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The user profile "Eric Sauer orchideric" is visible in the top right. The layer page has a blue header with the title and a pencil icon for editing. Below the header, there are tabs for Overview, Data, Visualization, Usage, and Settings. The main content area is divided into several sections: a thumbnail map with an "Add to Favorites" button, a description section with a placeholder text "Add an in-depth description of the item.", a layers section showing "Parking Lot Light Poles" as a "Point layer", a tables section showing "Lightpole Inspections" as a "Table", and a terms of use section. On the right side, there is a vertical menu with options: "Open in Map Viewer" (highlighted with a red circle), "Open in Map Viewer Classic" (also highlighted with a red circle), "Open in Map Viewer Classic with full editing control", "Publish", "Create View Layer", "Export Data", "Update Data", "Share", and "Metadata". At the bottom right, there is an "Item Information" section with a progress bar and a "Top Improvement" section with a link to "Add a longer summary".

Building an Inspection Process - Field Maps

- ▶ Zoom to see all the light poles
- ▶ Click on one of the light poles to see point properties
 - ▶ Notice the pop up displays all info
 - ▶ Can be modified to only display needed info
- ▶ Close the pop-up window
- ▶ Click three dots to edit layer properties
- ▶ Click Configure Pop Ups in menu



Building an Inspection Process - Field Maps

- ▶ Configure Pop Up Windows
 - ▶ Change the Pop-up Title
 - ▶ Click Display and select a custom attribute display
 - ▶ Click Configure

Home ▾ My Map

Details Add ▾ Basemap Analysis

Configure Pop-up

Parking Lot Lightpole Inspections

☒ Show Pop-ups

Pop-up Title

Lightpole Data

Pop-up Contents

Display: A custom attribute display ▾

CONFIGURE

Configure Attributes

☒ Show feature attachments as links

Attribute Expressions

Adding expressions allows you to create new information from existing fields for use in pop-ups.

ADD

No expressions.
Click 'Add' to add one.

Pop-up Media

Display images and charts in the pop-up:

ADD ▾

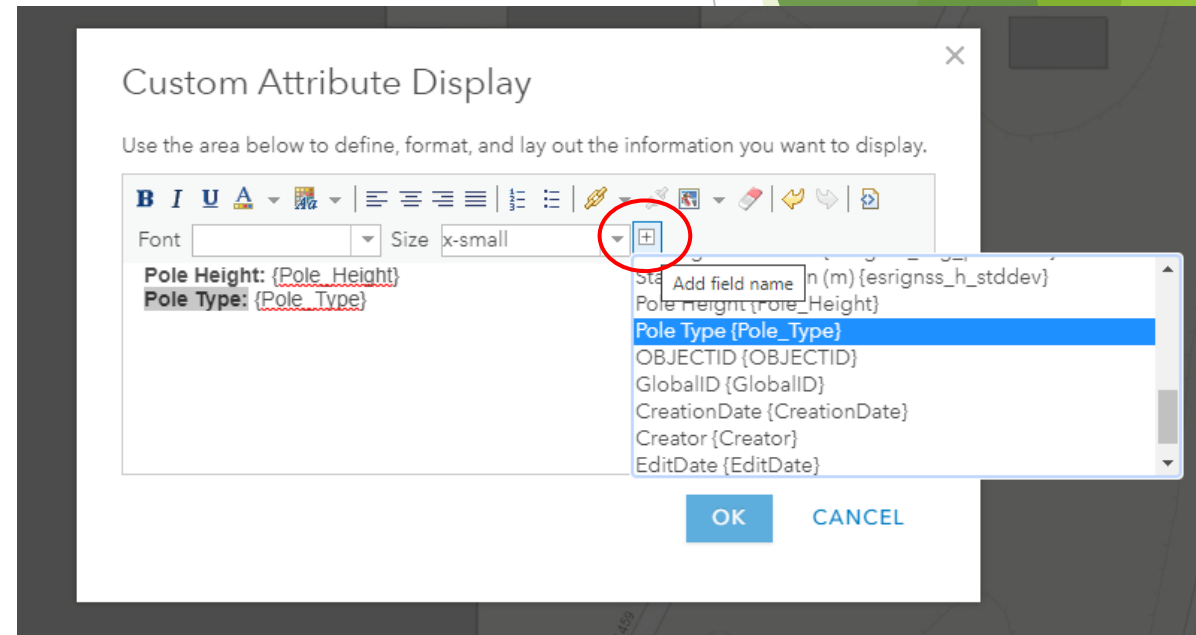
No images or charts.

OK CANCEL

Trust Center Contact Esri Report Abuse

Building an Inspection Process - Field Maps

- ▶ Configure Pop Up Windows
 - ▶ Change the Pop-up Title
 - ▶ Click Display and select a custom attribute display
 - ▶ Click Configure
 - ▶ Type Pole Height (Highlight text and bold it)
 - ▶ Click the + and select the Pole Height Attribute
 - ▶ Type Pole Type Pole Type (Highlight text and bold it)
 - ▶ Click the + and select the Pole Height Attribute
- ▶ Click OK



Building an Inspection Process - Field Maps

- Configure Pop Up Windows

- Click OK

Home ▾ My Map

Details Add ▾ Basemap Analysis

Configure Pop-up

Parking Lot Lightpole Inspections

☒ Show Pop-ups

Pop-up Title

Lightpole Data

Pop-up Contents

Display: A custom attribute display ▾

CONFIGURE

Configure Attributes

☒ Show feature attachments as links

Attribute Expressions

Adding expressions allows you to create new information from existing fields for use in pop-ups.

ADD

No expressions.
Click 'Add' to add one.

Pop-up Media

Display images and charts in the pop-up:

ADD ▾

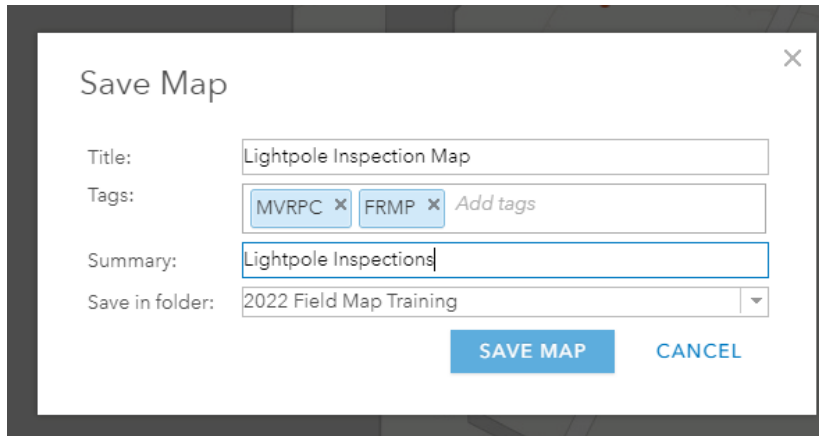
No images or charts.

OK CANCEL

Trust Center Contact Esri Report Abuse

Building an Inspection Process - Field Maps

- ▶ Configure Pop Up Windows
 - ▶ Click on one of the light poles
 - ▶ Notice changes made to the pop-up window
- ▶ Save the Map
 - ▶ Add map title, tags and summary



A screenshot of the 'Save Map' dialog box in the Esri Field Maps application. The dialog has a title bar with a close button. It contains four input fields: 'Title' with the text 'Lightpole Inspection Map', 'Tags' with two tags 'MVRPC' and 'FRMP' and a link 'Add tags', 'Summary' with the text 'Lightpole Inspections', and 'Save in folder' with a dropdown menu showing '2022 Field Map Training'. At the bottom are two buttons: 'SAVE MAP' and 'CANCEL'.

Save Map

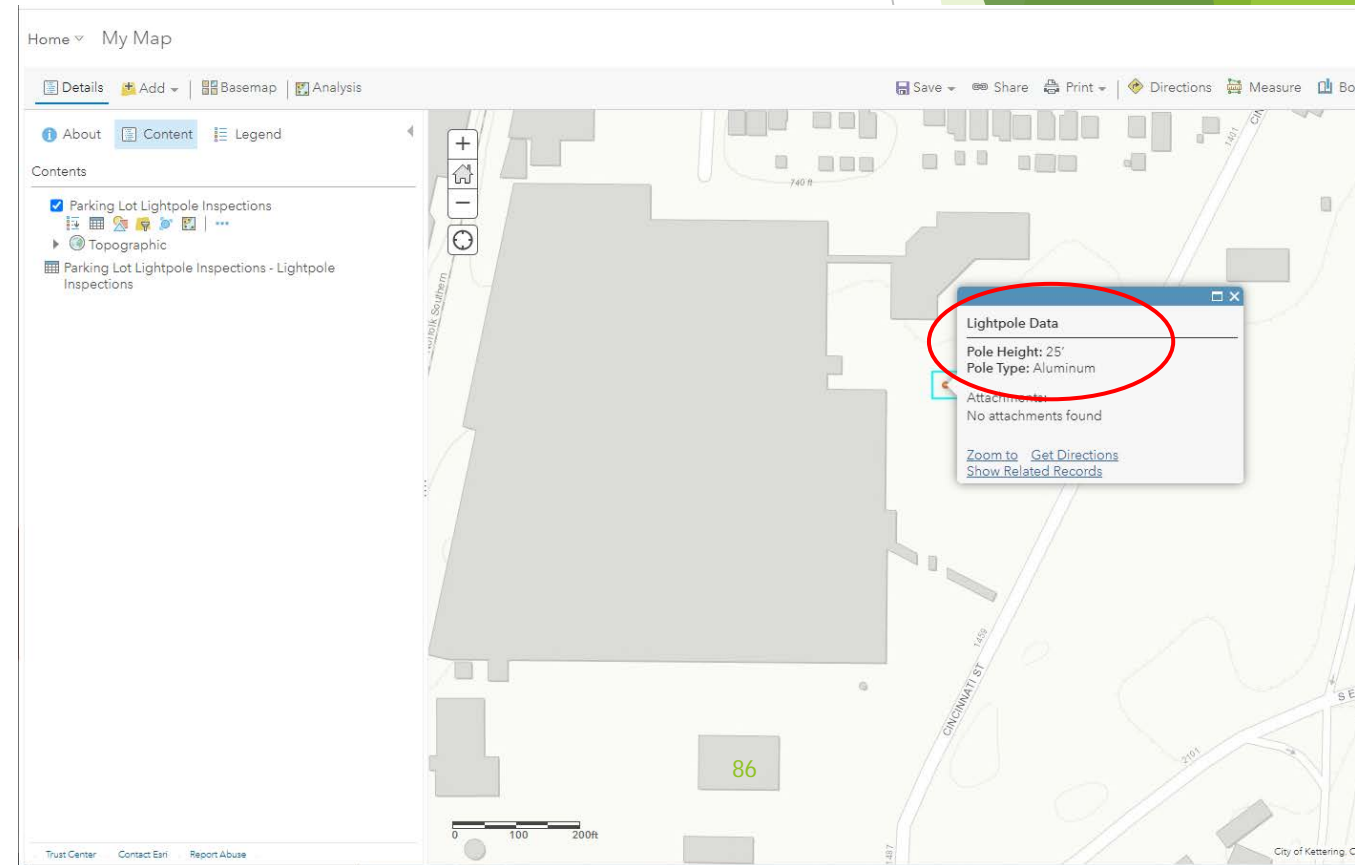
Title: Lightpole Inspection Map

Tags: MVRPC × FRMP × [Add tags](#)

Summary: Lightpole Inspections

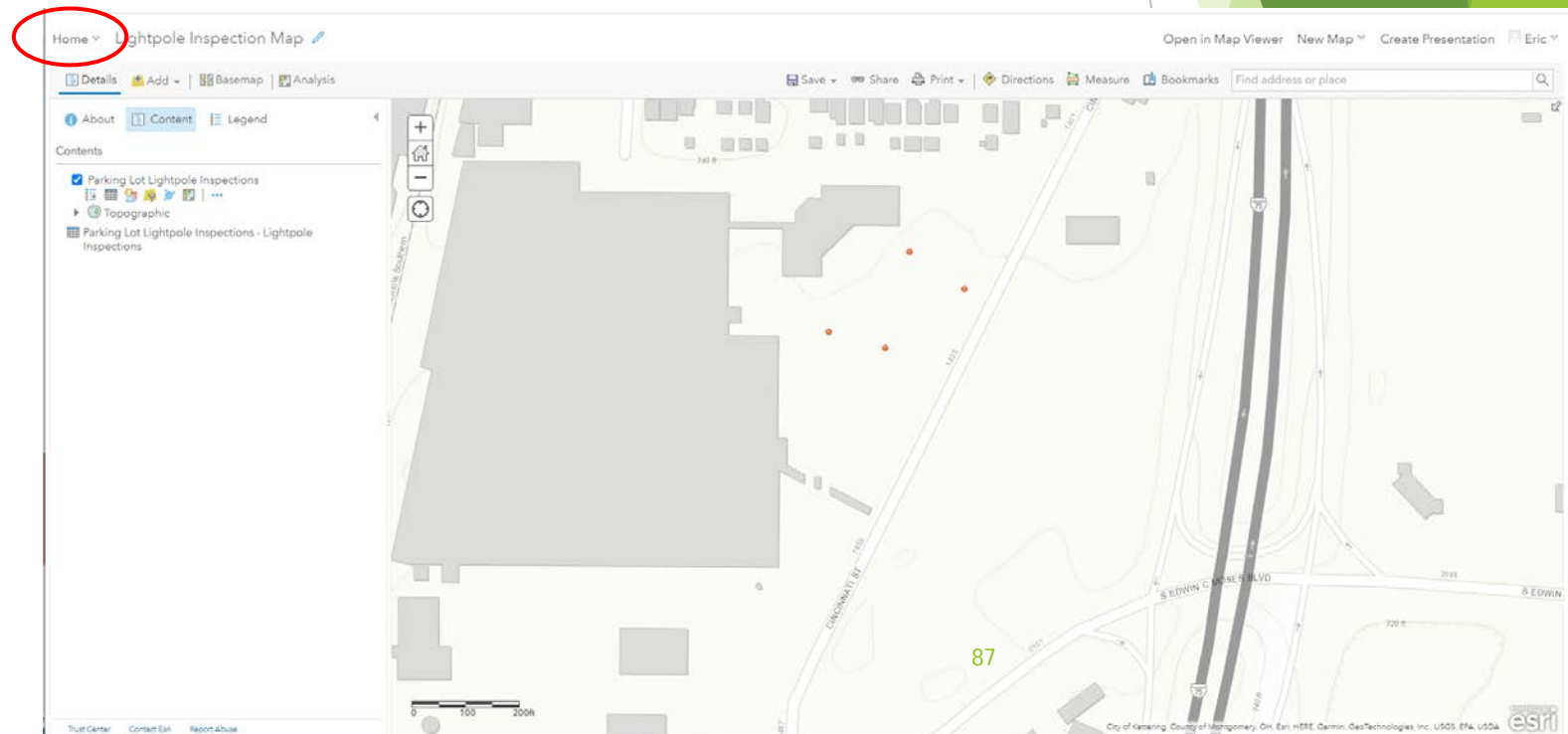
Save in folder: 2022 Field Map Training

[SAVE MAP](#) [CANCEL](#)



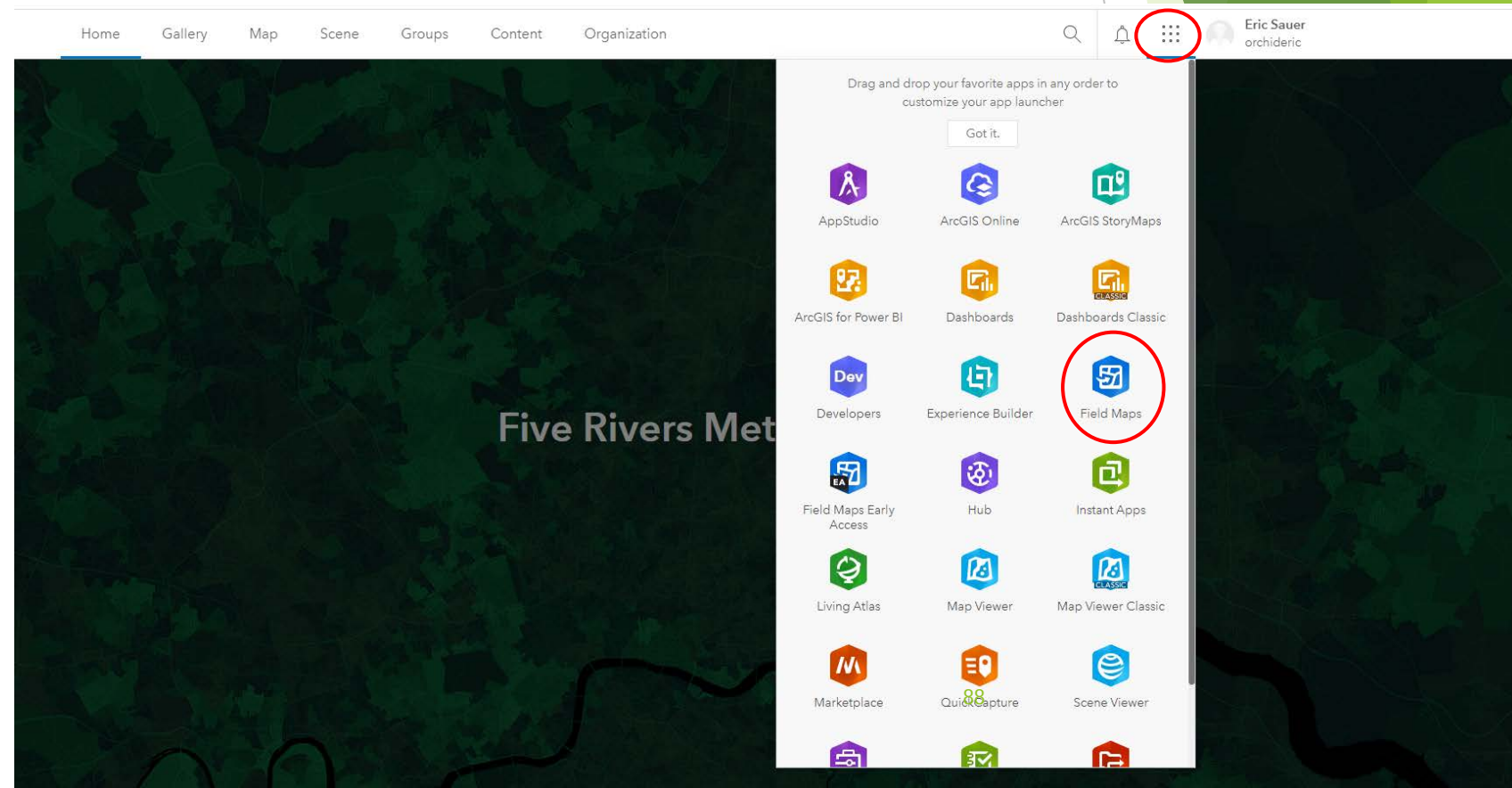
Building an Inspection Process - Field Maps

- ▶ Return to the Online Home Page
 - ▶ Click Home
 - ▶ Click Home from the Drop Down



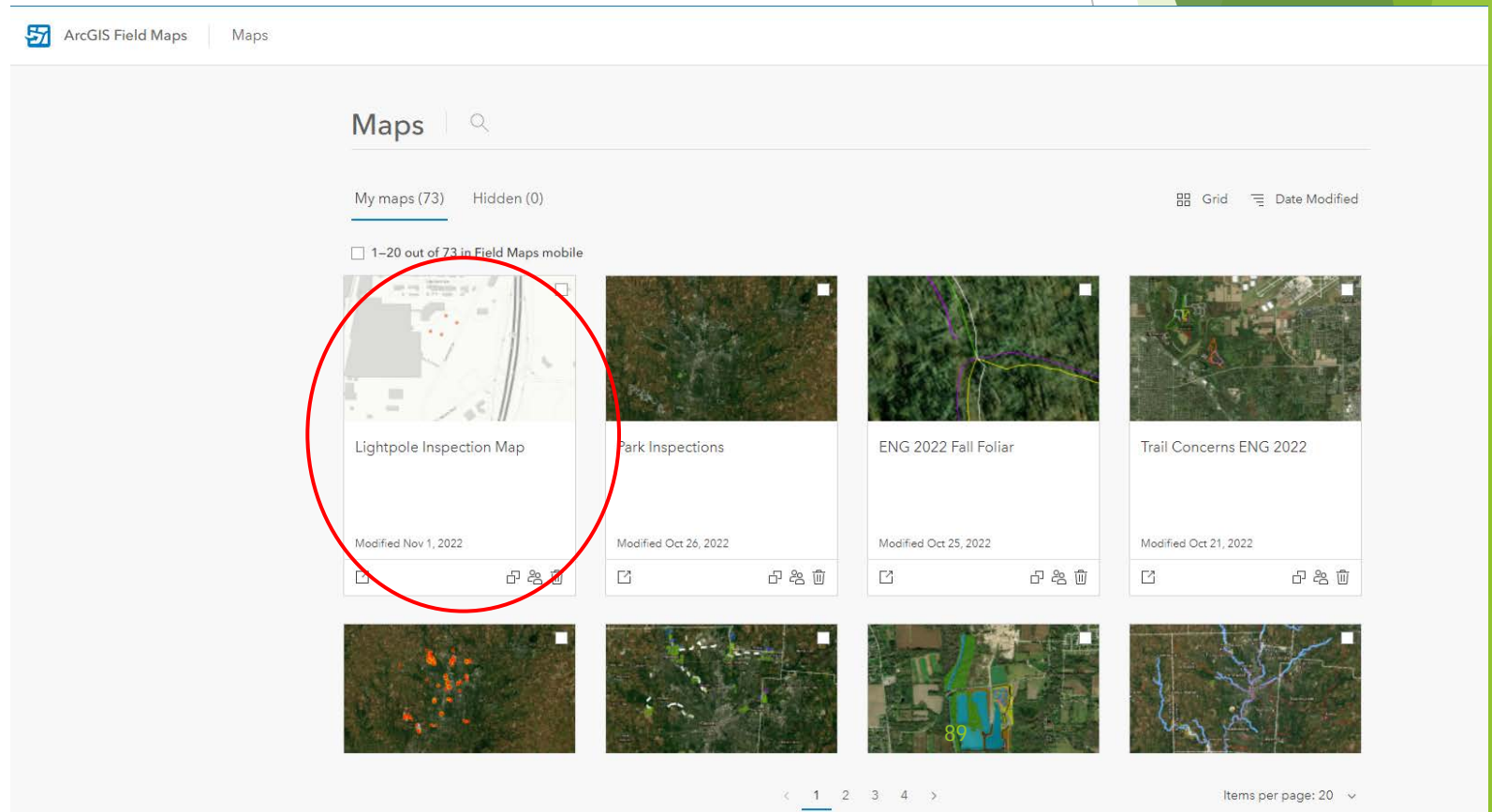
Building an Inspection Process - Field Maps

- ▶ Open the Field Maps App
 - ▶ Click the Apps Button
 - ▶ Select Field Maps



Building an Inspection Process - Field Maps

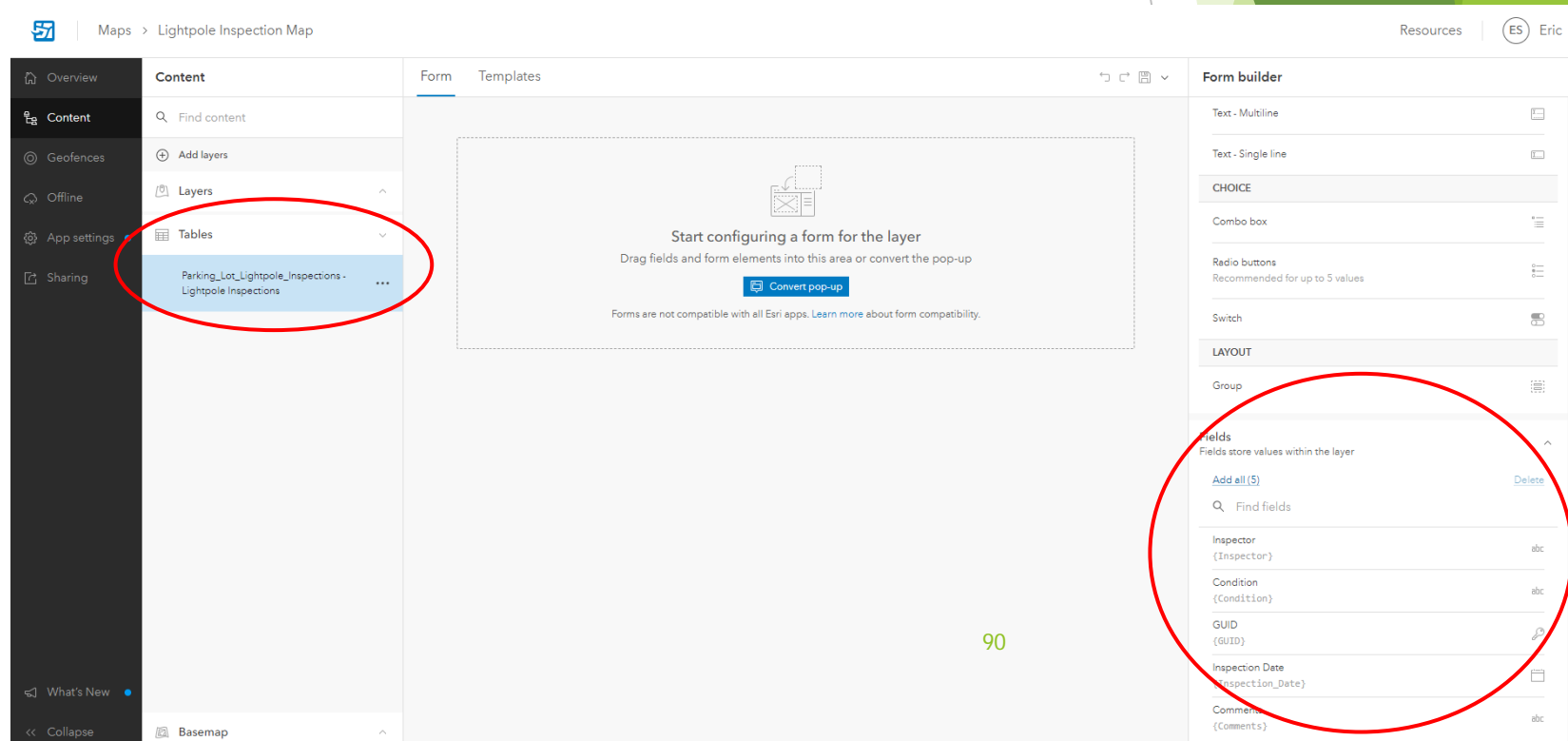
- ▶ Open the Light pole Inspections Map
- ▶ Click on the map icon



Building an Inspection Process - Field Maps

- ▶ Create the Inspection Form

- ▶ Click Tables
- ▶ Click on the table name
- ▶ This opens the Form Dialog
- ▶ Scroll down to Fields



Building an Inspection Process - Field Maps

- Create the Inspection Form
- Drag Desired Inspection Fields to Dialog Box

The screenshot displays the ArcGIS Field Maps interface for configuring a form titled "Lightpole Inspections". The interface is divided into several panels:

- Left Panel (Navigation):** Includes "Overview", "Content", "Geofences", "Offline", "App settings", and "Sharing". The "Content" panel is active, showing a search bar and a list of layers. The layer "Parking_Lot_Lightpole_Inspections - Lightpole Inspections" is selected.
- Form Panel (Center):** Shows the form configuration for "Lightpole Inspections". It includes fields for "Inspection Date *" (with a date picker), "Inspector *" (text input), "Condition *" (dropdown), and "Comments" (text area). A blue box highlights the "Inspection Date *" field, and a trash icon is visible next to it.
- Right Panel (Properties):** Shows the "Properties" panel for the selected field. It includes sections for "Formatting" (Display name, Field name, Field type, Input type, Description) and "Start date" (Start date, End date). The "Required" checkbox is checked, and the "Allow null values in the feature layer?" option is set to "Yes". A warning message states: "Allow null values option cannot be changed for existing fields".

The bottom right corner of the interface shows the number "91".

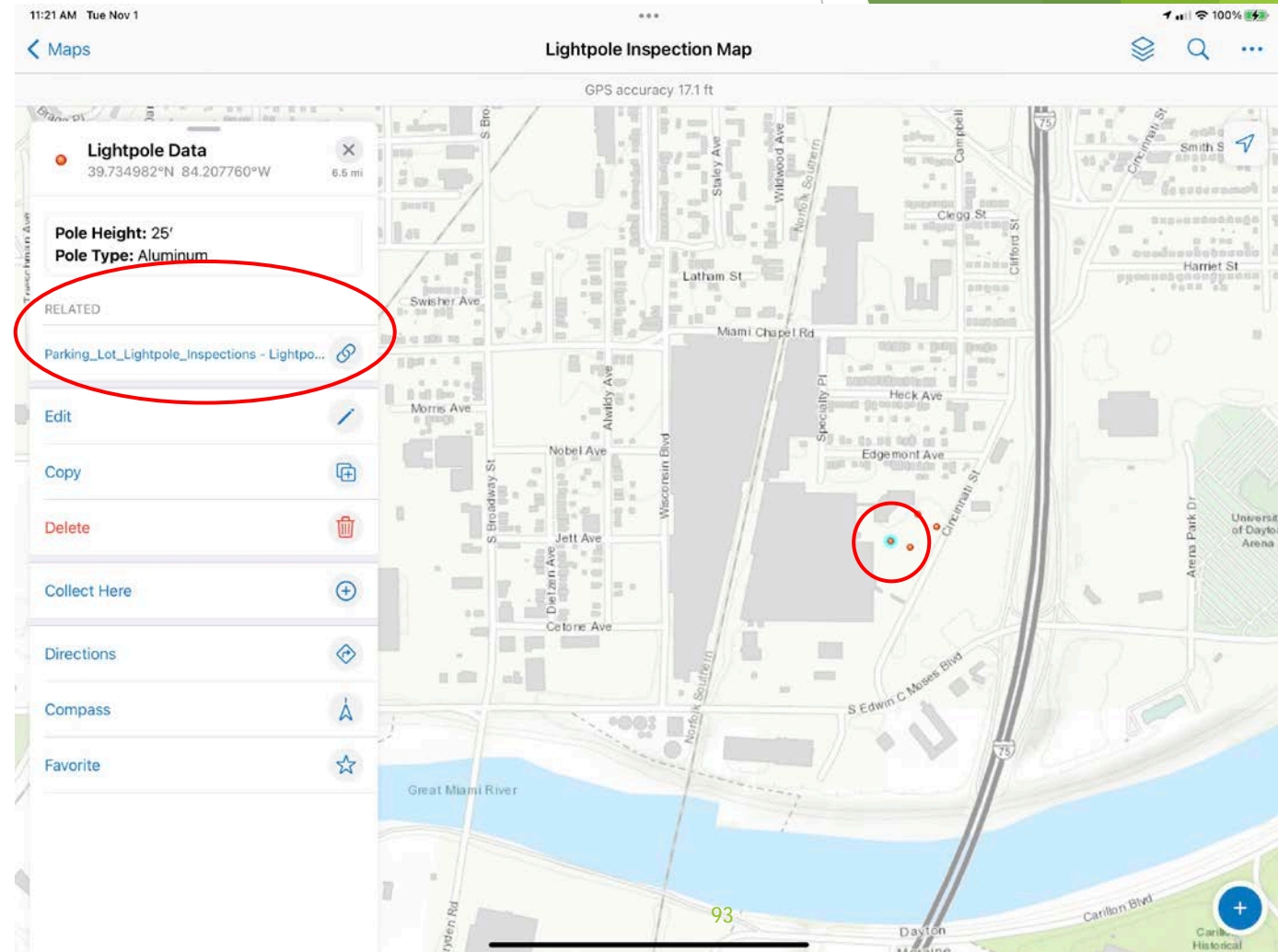
Building an Inspection Process - Field Maps

- ▶ Create the Inspection Form
 - ▶ Edit the Inspection Form Name
 - ▶ Click on the title and edit if desired
 - ▶ Edit the Properties of each Field
 - ▶ Consider Required for the field
 - ▶ Click Save once edits are complete

The screenshot displays the ArcGIS Field Maps interface. The main form, titled 'Lightpole Inspections', is shown on the left. It includes fields for 'Inspection Date *', 'Inspector *', 'Condition *', and 'Comments'. The 'Inspection Date *' field is highlighted with a red circle. To the right, the 'Properties' panel is open, showing the configuration for the 'Inspection Date' field. The 'Properties' panel is also highlighted with a red circle. It includes sections for 'Formatting', 'Field name', 'Field type', 'Input type', 'Description', 'Start date', 'End date', and 'Required'. The 'Required' checkbox is checked. The 'Allow null values in the feature layer?' option is set to 'Yes'. The 'Default date' field is also visible. The 'Properties' panel is titled 'Properties' and has a close button (X) in the top right corner. The top of the interface shows 'Resources' and a user profile 'ES Eric'.

Building an Inspection Process - Field Maps

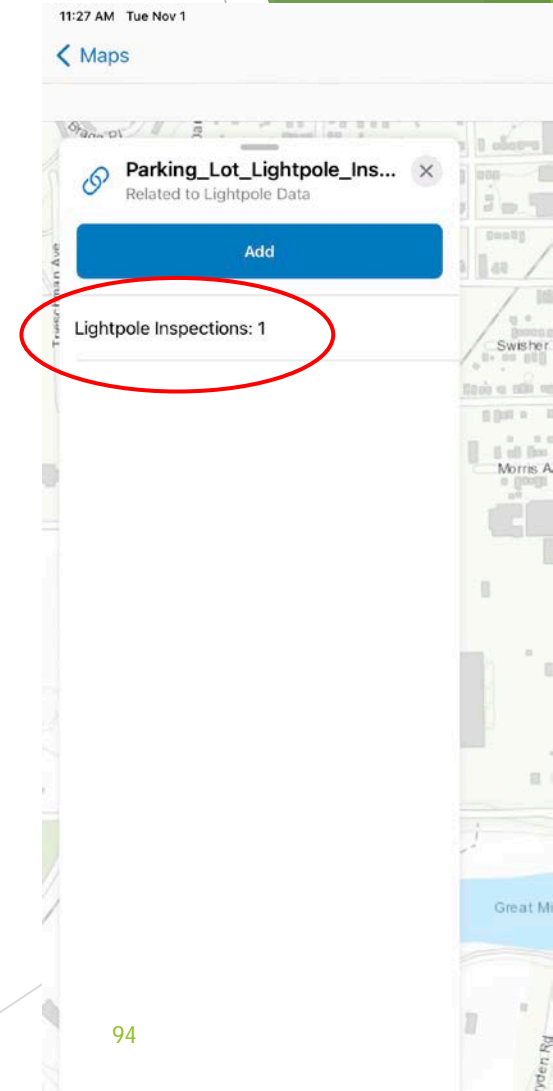
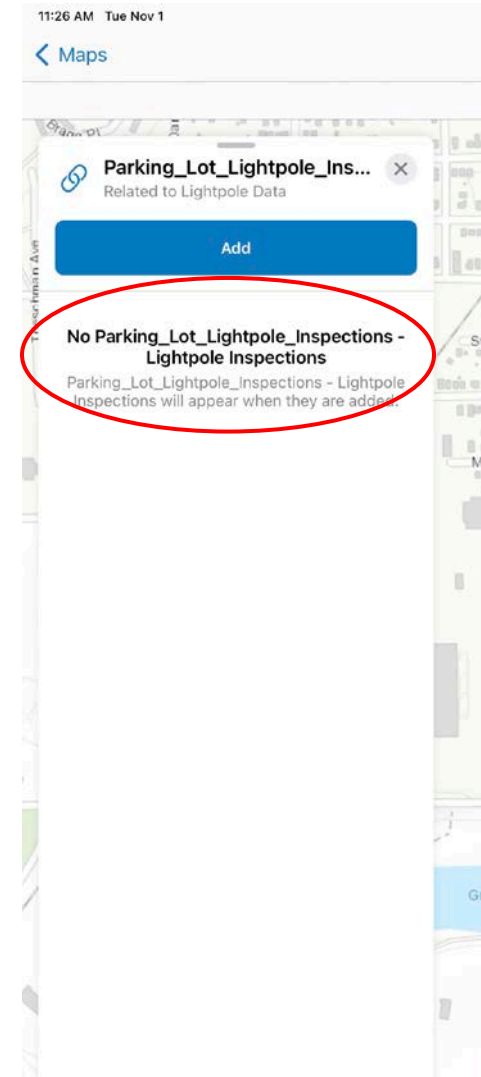
- ▶ View and Create an Inspection
 - ▶ Open Field Maps on a mobile device
 - ▶ Locate the created inspection map and open it
 - ▶ Click on one of the data points in the map
 - ▶ In the Pop Up, there is now a related field which is the inspection form
 - ▶ Click the inspection form



Building an Inspection Process - Field Maps

► Inspection Reports

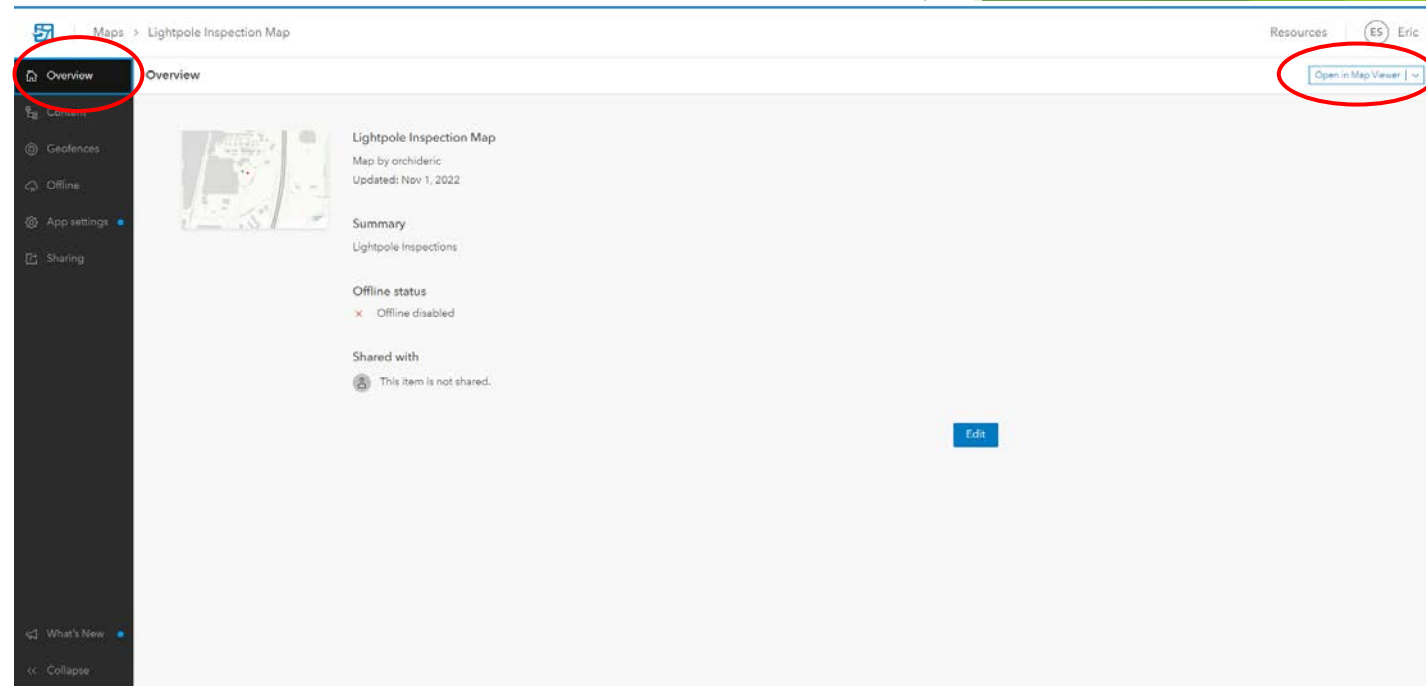
- The First time an item is inspected, it will show no inspections
- Once inspections have been done, old inspections can be accessed
- To create a new inspection, click Add



Building an Inspection Process - Field Maps

► Inspection Reports

- The inspection title only shows how many inspections
- Let's change this to show the inspection dates to make it more useful for someone in the field
- Open the Field Maps App online
- Click the Overview Tab
- Click Open in Map Viewer



Building an Inspection Process - Field Maps

► Inspection Reports

- Click Tables on the left
- Click Pop ups on the right
- Click the Down Arrow on Title

The screenshot displays the Map Viewer interface with a map of a parking lot. A pop-up window shows inspection details for a specific location. The interface includes a left sidebar with a 'Tables' panel, a right sidebar with 'Pop-ups' and 'Options' panels, and a bottom table of inspection records. Red circles highlight the 'Tables' button in the left sidebar, the 'Pop-ups' button in the right sidebar, and the down arrow next to the 'Title' field in the 'Options' panel.

Map Viewer

Tables

Parking_Lot_Lightpole_Inspections - Lightpole Inspections

+ Add table

Pop-ups

Pop-ups authored in Map Viewer are not compatible with all apps.

Enable pop-ups

Options

Attribute expressions

Title

Inspection Date: (Inspect...

Inspection Date: {Inspection_Date}

Fields list

4/7 fields

Attachments

Auto

+ Add content

Parking_Lot_Lightpole_Inspections - Lightpole Inspections

Inspector	Condition	GUID	Inspection Date	Comments
Eric	Meets Standards	507ddb1f-a085-4c95-a51...	11/1/2022, 11:24 AM	
Eric	Needs Attention	e13a4f55-0815-4971-aebf...	9/7/2022, 11:35 AM	Light is out

City of Kettering, County of Montgomery, OH, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA, USDA

Powered by Esri

Building an Inspection Process - Field Maps

► Inspection Reports

► Edit the Field to:

- Inspection Date:
- Click the Parentheses to the right
- Select the Inspection Date Field

Parking_Lot_Lightpole_Inspections - Lightpole Ins

Pop-ups

Pop-ups authored in Map Viewer are not compatible with all apps.

Enable pop-ups

Options

Attribute expressions

Title

Inspection Date: {Inspect...

Inspection Date: {Inspection_Date}

Fields list

4/7 fields

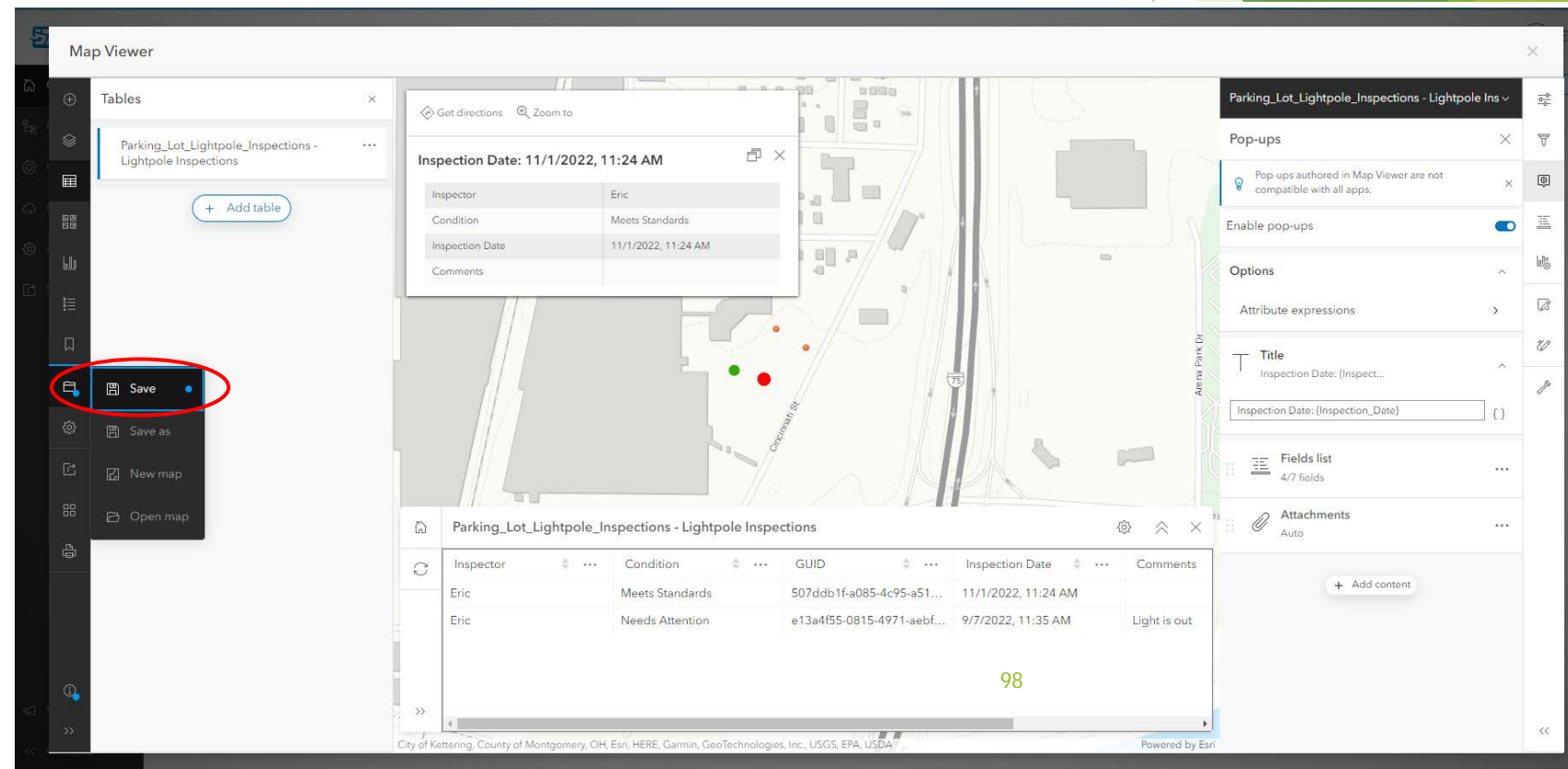
Attachments

Auto

97

Building an Inspection Process - Field Maps

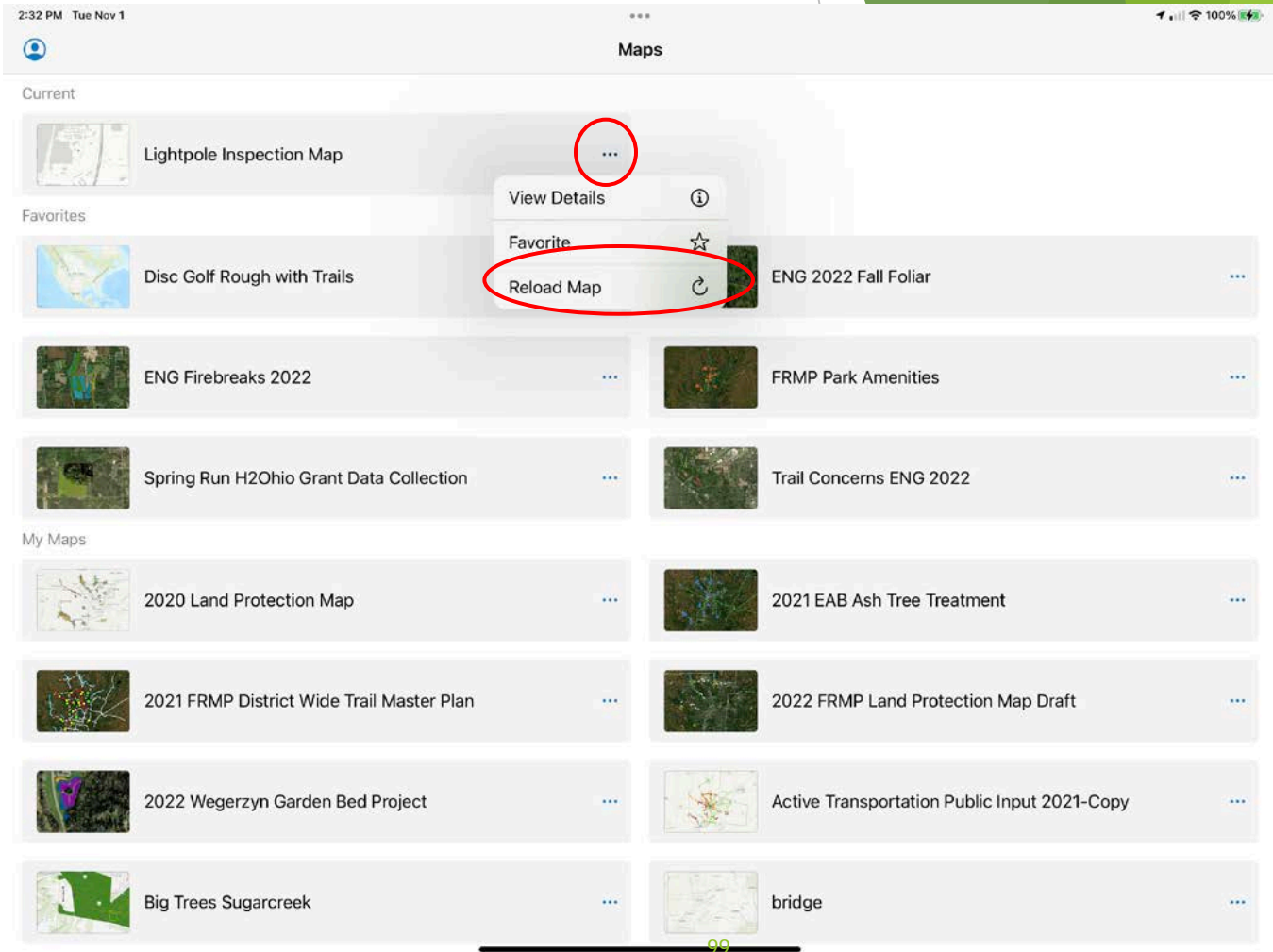
- Inspection Reports
 - Click Save on the left



Building an Inspection Process - Field Maps

► Inspection Reports

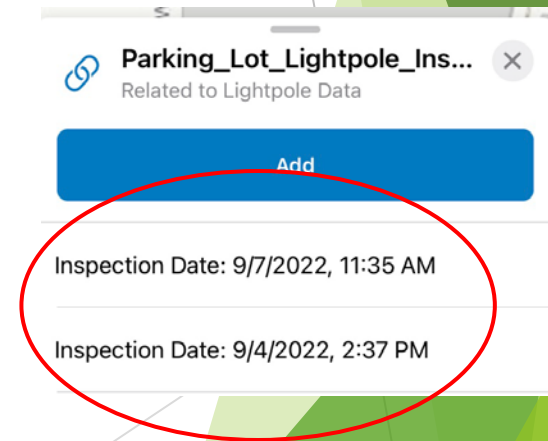
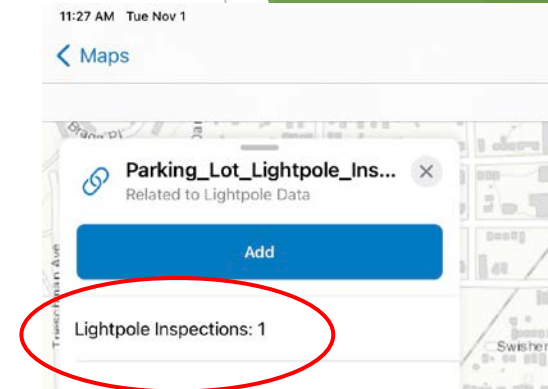
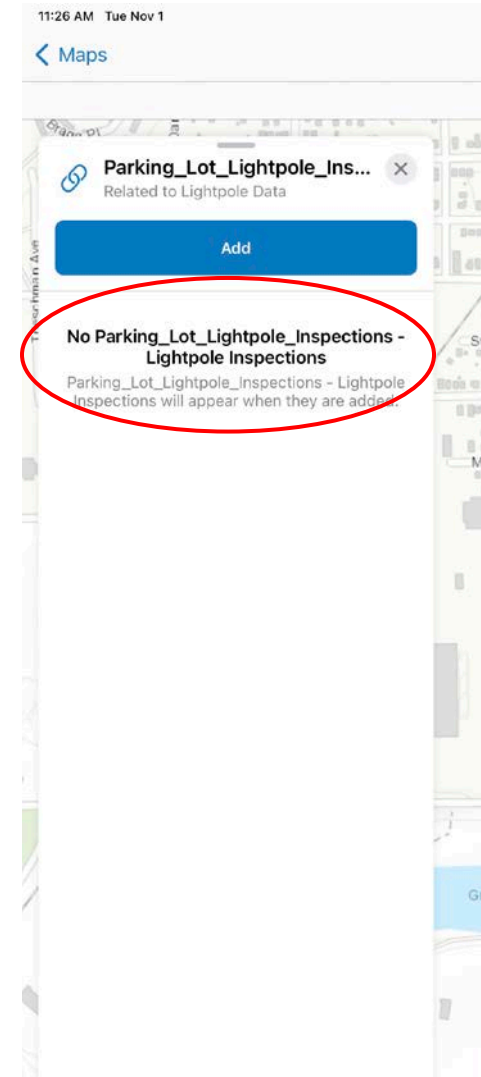
- Go back to Field Maps on the mobile device
- Click Maps to go back to the map list
- Click the 3 dots next to the map title
- Click Reload
 - Anytime changes are made, map must be reloaded
- Click on the map



Building an Inspection Process - Field Maps

► Inspection Reports

- Click on a feature to get to the pop up and select the inspection
- Notice Light pole Inspections: 2 have changed to list the dates of the inspections!
- To create a new inspection, click Add



Building an Inspection Process - Field Maps

- ▶ Inspection Reports
 - ▶ Fill in the Fields in the inspection form
 - ▶ Anything that is a required field must be completed before Field Maps will allow the inspection report to be submitted
 - ▶ Can add a photo or upload a photo

11:31 AM Tue Nov 1

Cancel Collect Submit

GPS accuracy 22 ft

Lightpole Inspections

Take Photo Attach

Inspection Date *
No Value

Inspector *
No Value

Condition *
No Value

Comments

Great Miami River

Dayton

Carillon Blvd

Carillon Historical

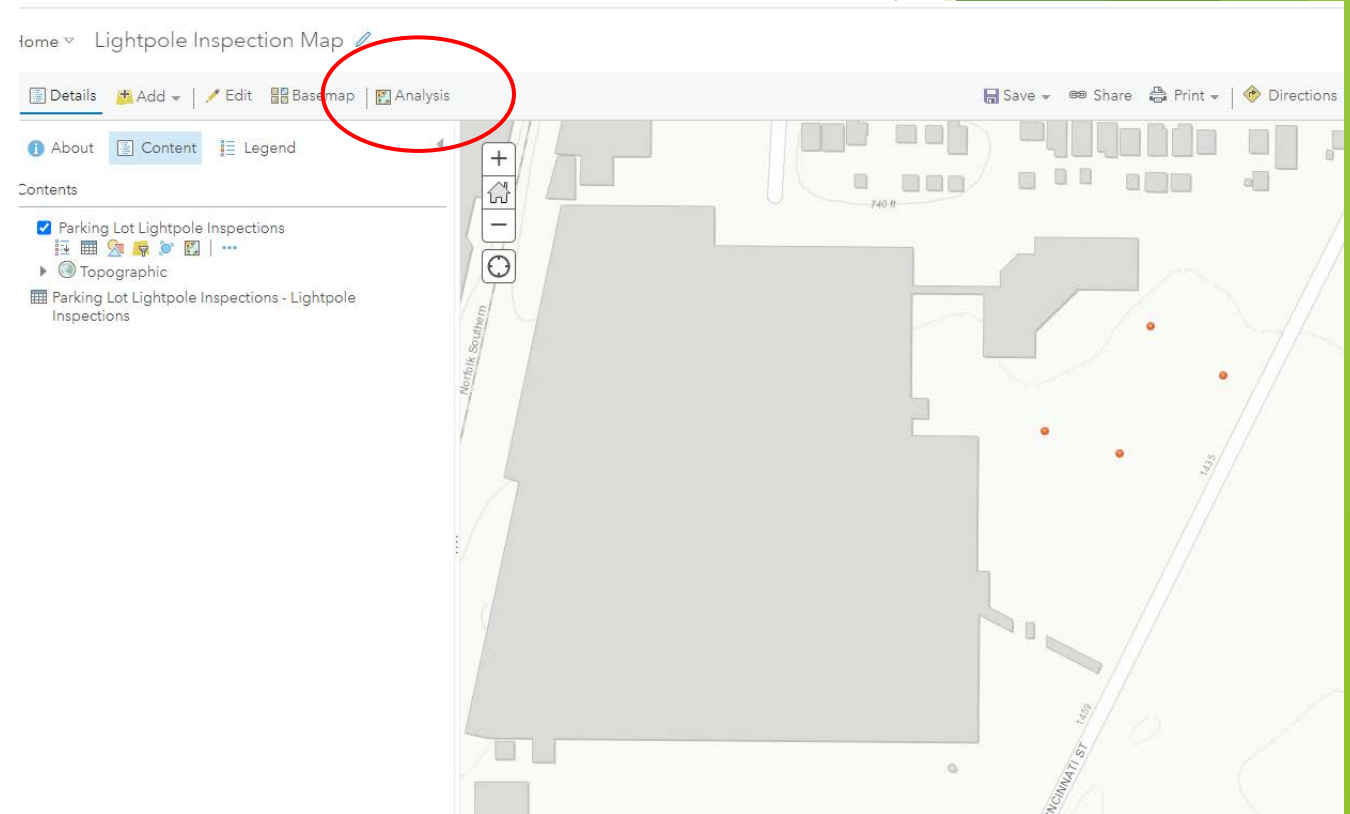
Building an Inspection Process - Field Maps

- ▶ Inspection Reports
 - ▶ Adjustments can be made to the inspection report
 - ▶ Additional Fields
 - ▶ Additional drop-down responses
 - ▶ Required fields
 - ▶ Make adjustments in ArcGIS Online or the Online Field Maps APP

Building an Inspection Process - Field Maps

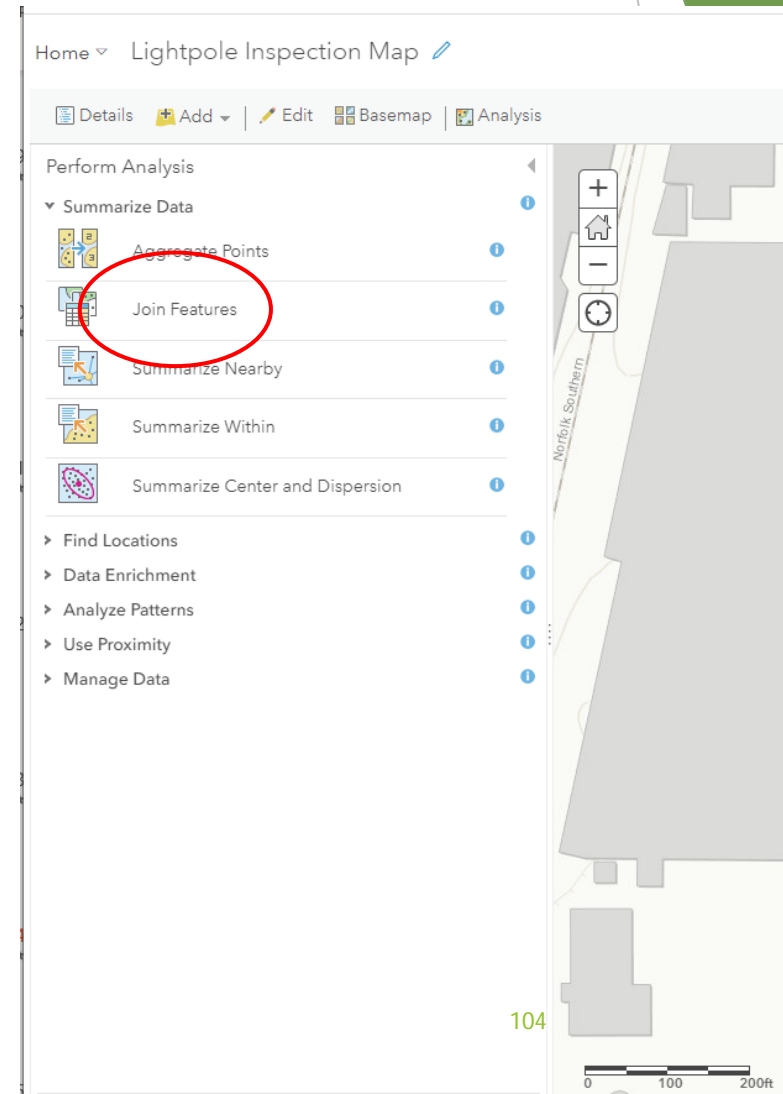
► Inspection Reports Tracking

- Symbology can be set up to show which items have been inspected within a given period of time
- Log back into ArcGIS Online and open the Inspection Map Viewer Classic
- Click the Analysis Tab



Building an Inspection Process - Field Maps

- Inspection Reports Tracking
 - Under Summarize Data, click Join Features



Building an Inspection Process - Field Maps

► Inspection Reports Tracking

- Choose target Layer
 - Select the Feature Layer
- Choose Layer to join to target layer
 - Select the inspection table
- Choose Fields to match
 - Global ID to GUID
- Order by:
 - Inspection Date and Newest

The screenshot shows the 'Join Features' dialog in the ArcGIS Field Maps application. The dialog is titled 'Join Features' and has a blue information icon. It is divided into five numbered steps:

- 1 Choose target layer**: A dropdown menu shows 'Parking Lot Lightpole Inspections'.
- 2 Choose layer to join to target layer**: A dropdown menu shows 'Parking_Lot_Lightpole_Inspections - L...'.
- 3 Select the type(s) of join**:
 - Choose a spatial relationship**: A button with a map icon.
 - Choose the fields to match**: Two dropdown menus are shown: 'GlobalID' and 'GUID', separated by an equals sign. Below them, 'Target field' and 'Join field' are also shown with equals signs.
- 4 Choose join operation**:
 - Join one to one**: A dropdown menu.
 - Define which record is kept**: A dropdown menu.
 - Order by**: A radio button is selected, followed by a dropdown menu showing 'Inspection Date' and 'Newest'.
 - Keep all target features**: A checkbox.
- 5 Result layer name**: A dropdown menu.

At the bottom of the dialog, there are links: 'Trust Center', 'Contact Esri', and 'Report Abuse'. A green number '105' is visible near the bottom right of the dialog.

Building an Inspection Process - Field Maps

- ▶ Inspection Reports Tracking
 - ▶ Create a Result Layer Name
 - ▶ Choose Folder to save the new Layer
 - ▶ Unclick Use Current Map Extent
 - ▶ Click Create results as a hosted feature layer view
 - ▶ Click Run Analysis

Home ▾ Lightpole Inspection Map [✎](#)

[Details](#) [Add ▾](#) [Edit](#) [Basemap](#) [Analysis](#)

3 Select the type(s) of join

Choose a spatial relationship

Choose the fields to match

GlobalID = GUID [✕](#)

Target field = Join field

4 Choose join operation

Join one to one

Define which record is kept

☐ First record (default)

☒ Order by

Inspection Date Newest

☐ Keep all target features

5 Result layer name

Recent Lightpole Inspections

Save result in 2022 Field Map Trainin ▾

☐ Use current map extent [Show Credits](#)

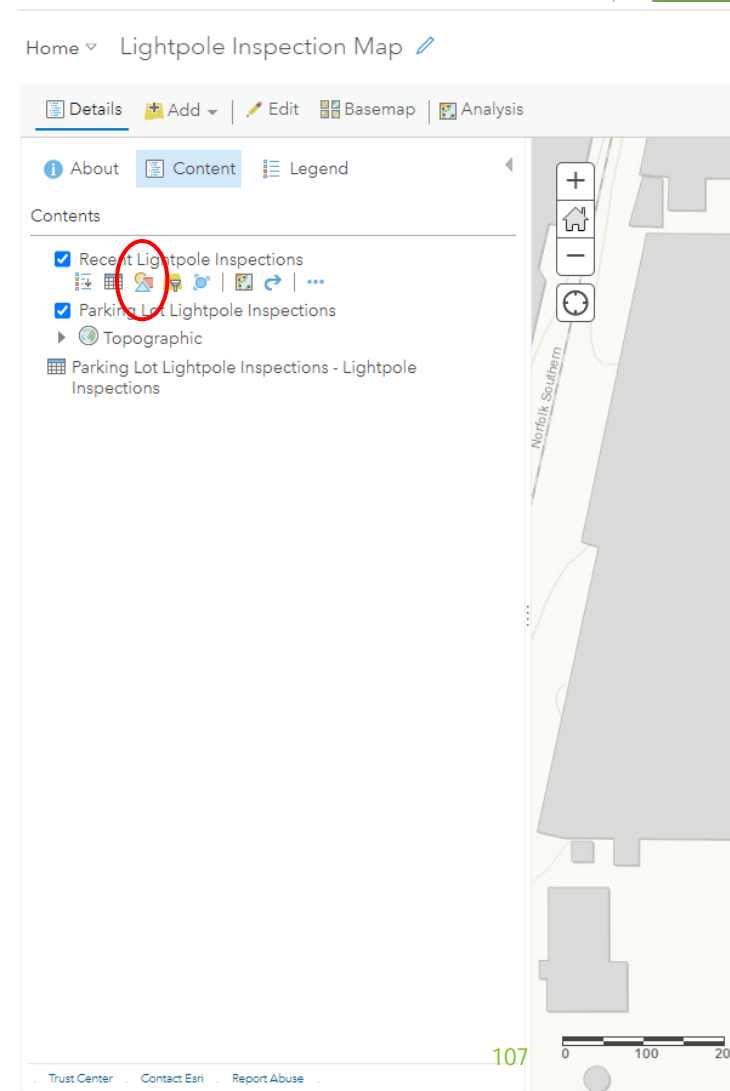
☒ Create results as hosted feature layer view

[RUN ANALYSIS](#) 106

[Trust Center](#) [Contact Esri](#) [Report Abuse](#)

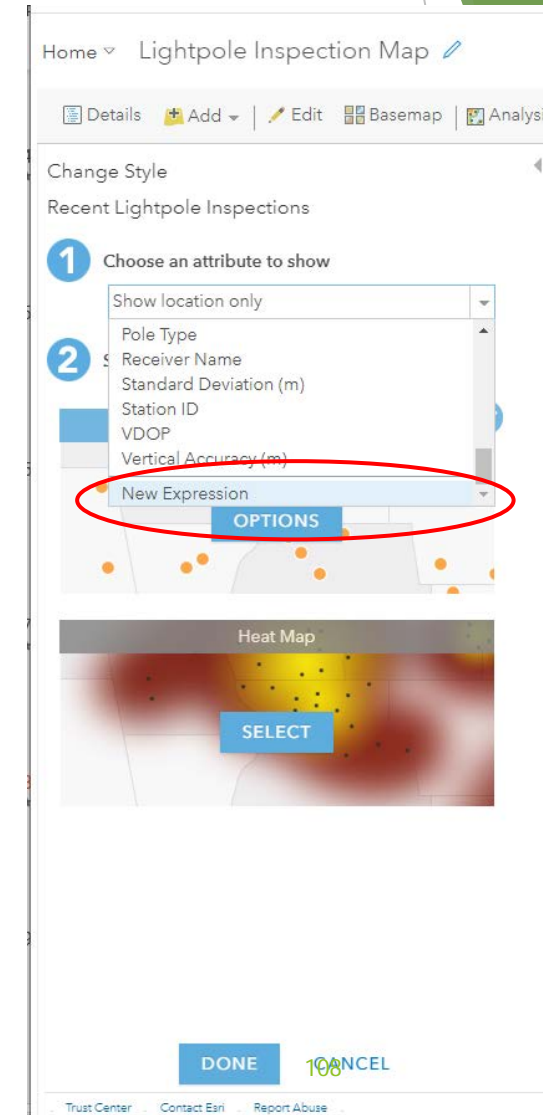
Building an Inspection Process - Field Maps

- Inspection Reports Tracking
 - Once back in the map, click the change style button on the new layer



Building an Inspection Process - Field Maps

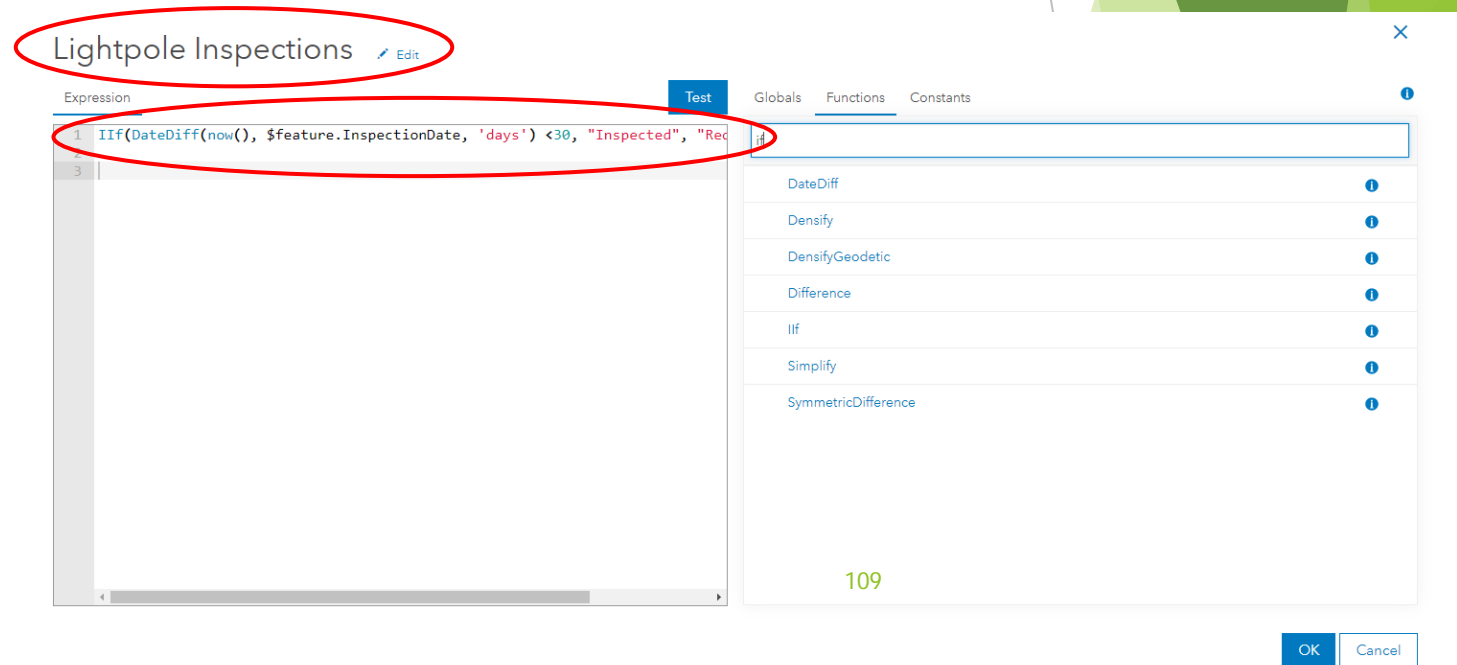
- ▶ Inspection Reports Tracking
 - ▶ Under #1 Choose and Attribute to show
 - ▶ Select New Expression (at the bottom of the list)



Building an Inspection Process - Field Maps

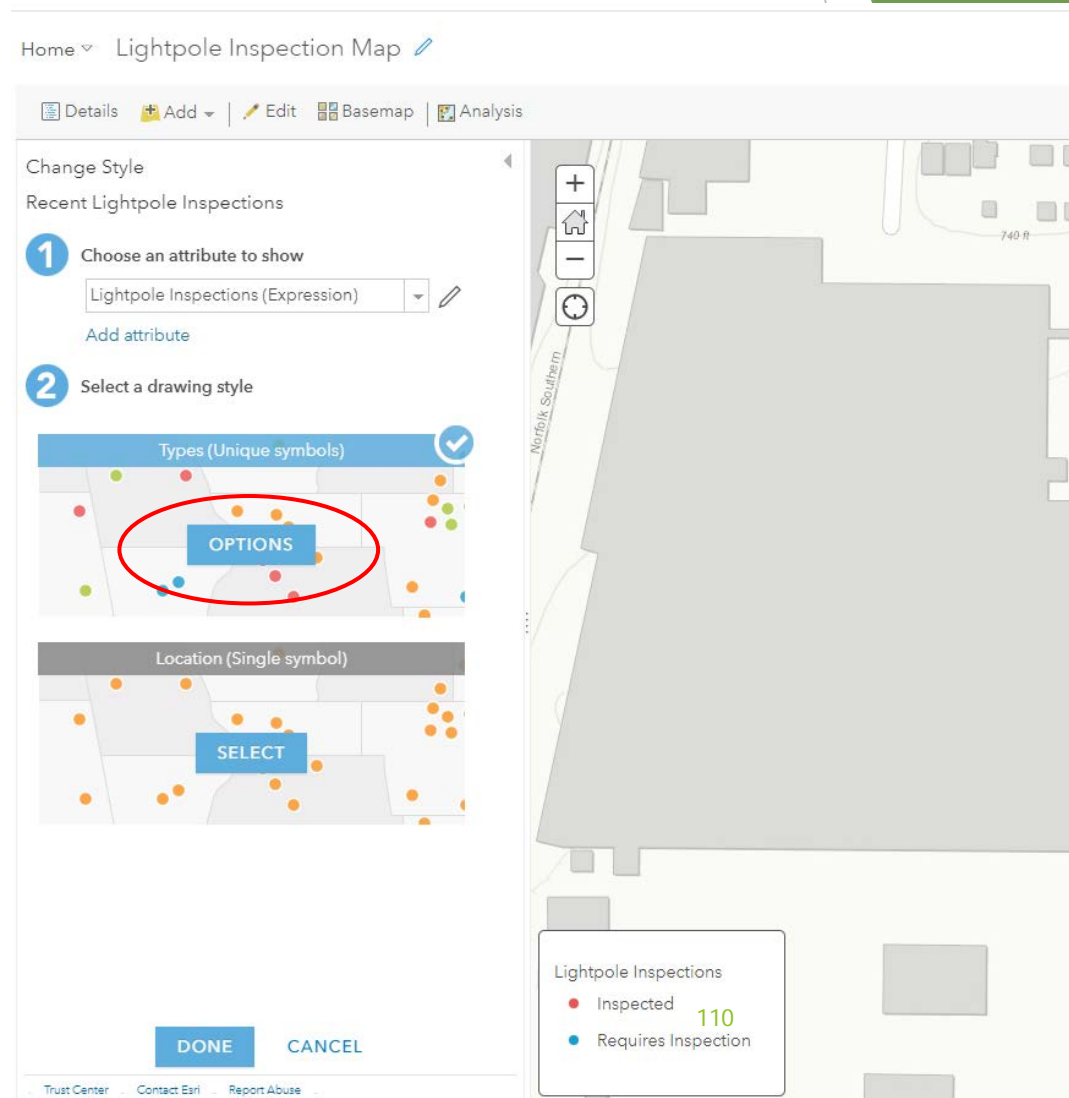
► Inspection Reports Tracking

- Create coding to show if lightpoles have been inspected in the last 30 days.
- Update the Title
- Delete existing code and replace
 - Select from Functions and Globals to create code or other options
 - `IIf(DateDiff(now(), $feature["Inspection_Date"], 'days') < 30, "Inspected", "Requires Inspection")`
 - This is an if then statement which states that if an inspection date is less than 30 days old, then show as inspected, if not show as Requires Inspection
 - Days can be minutes, hours, days, months, years and set for any period
- Click Test then OK



Building an Inspection Process - Field Maps

- ▶ Inspection Reports Tracking
 - ▶ Notice Legend Defaults
 - ▶ Click Options to update symbology



Building an Inspection Process - Field Maps

► Inspection Reports Tracking

► Notice Legend Defaults

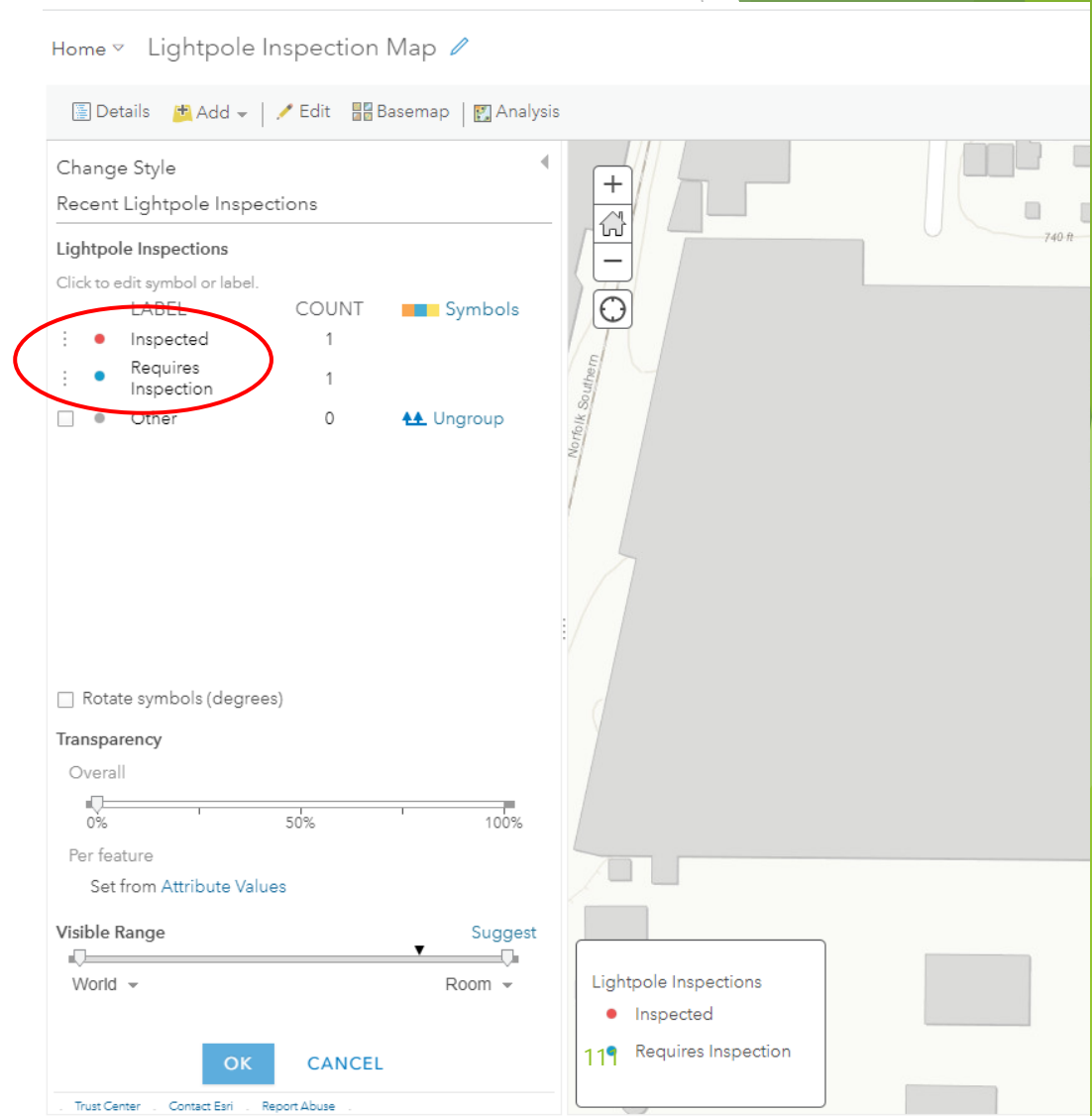
► Click Options to update symbology

► Colors, size, symbols

► Click Symbols to change to desired symbology to represent desired visual symbology

► If using polygons for inspections, may consider adjusting transparency

► Click OK when completed

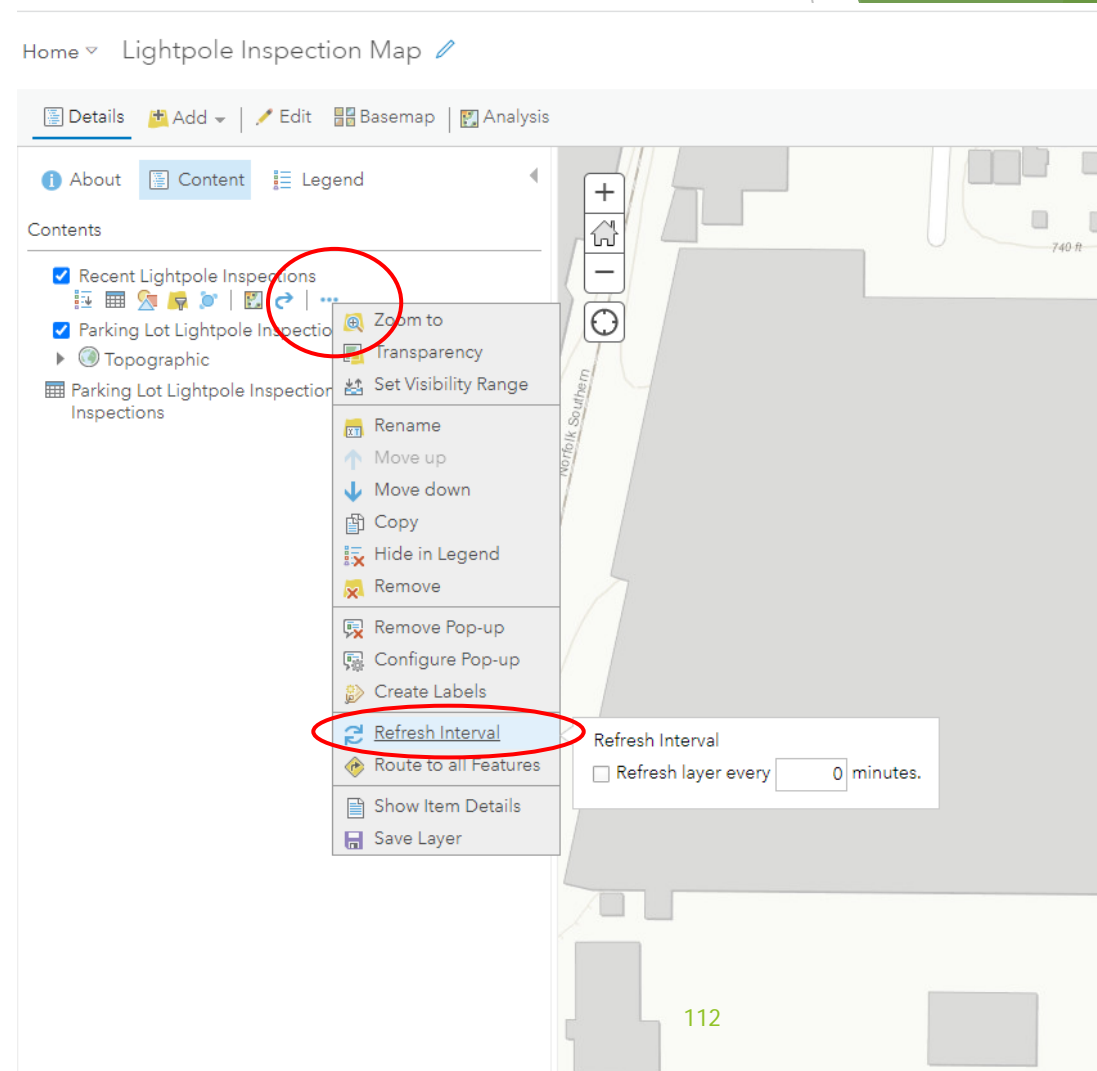


Building an Inspection Process - Field Maps

► Inspection Reports Tracking

► Adjust the Refresh Interval

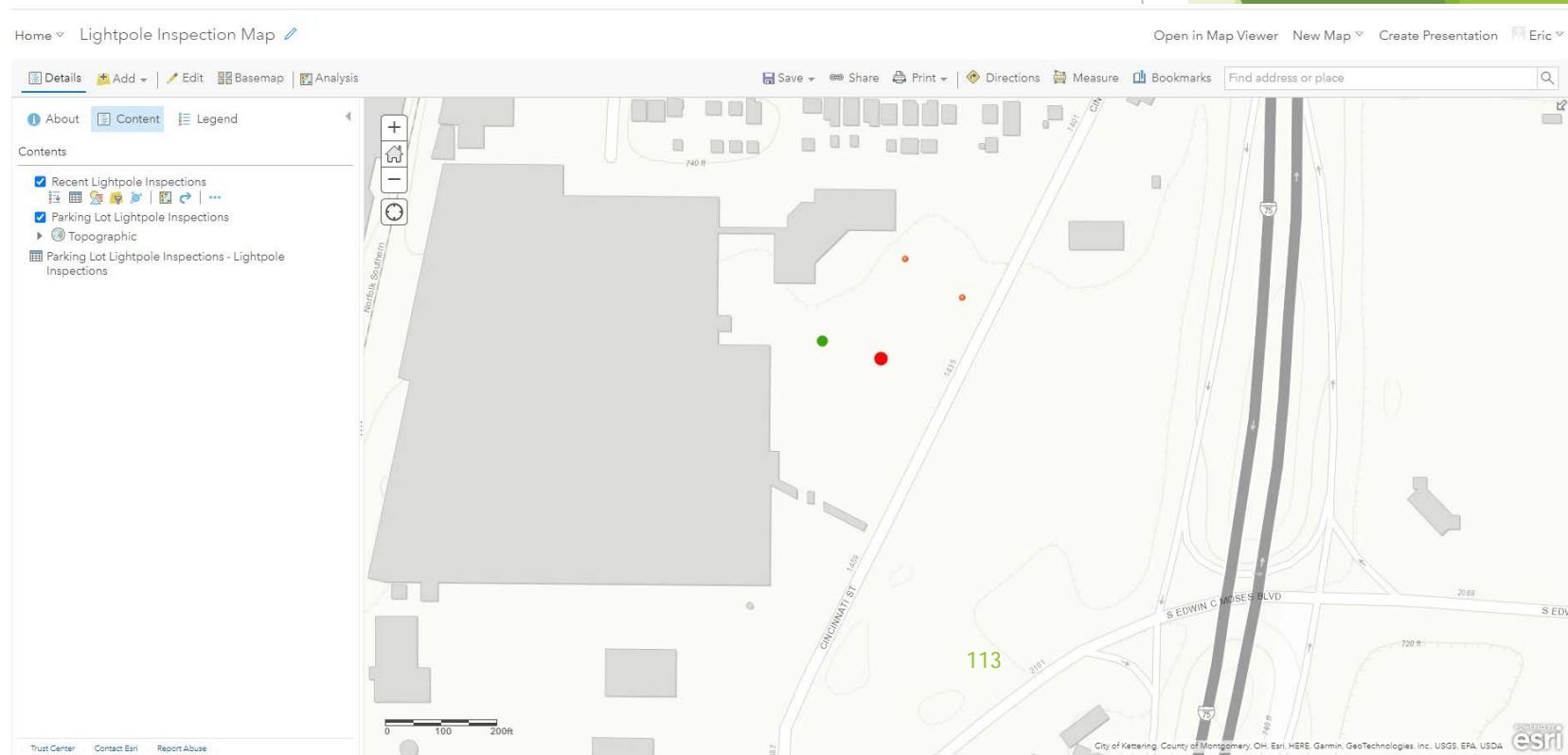
- Click the three dots by the layer
- Select Refresh Interval
- Select a time such as 0.5 for every 30 seconds
- This will ensure the layer updates automatically when inspections are completed



Building an Inspection Process - Field Maps

- ▶ Inspection Reports Tracking
 - ▶ Check the Results on the map
 - ▶ Adjust the symbology as desired

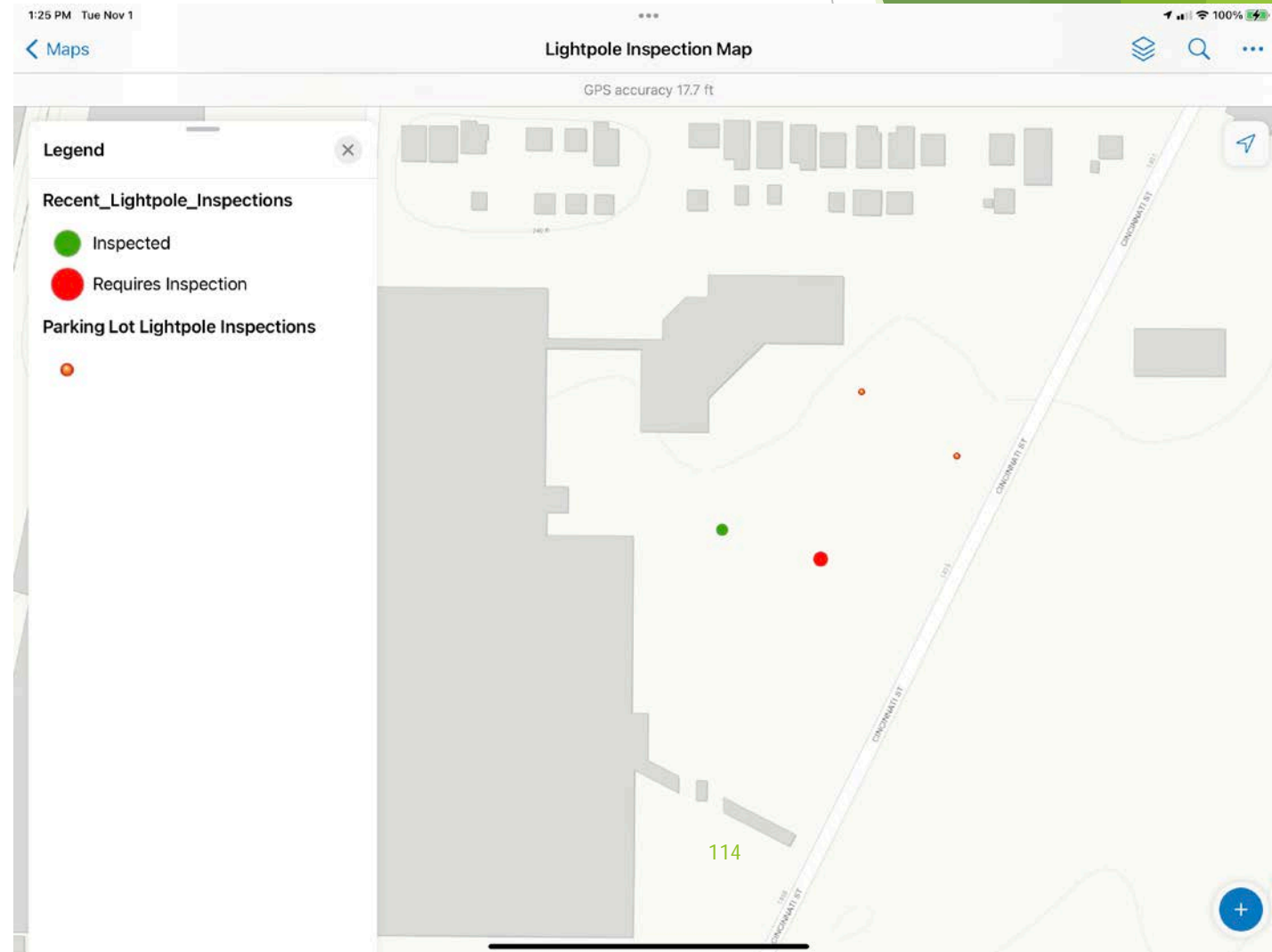
- ▶ Click Save



Building an Inspection Process - Field Maps

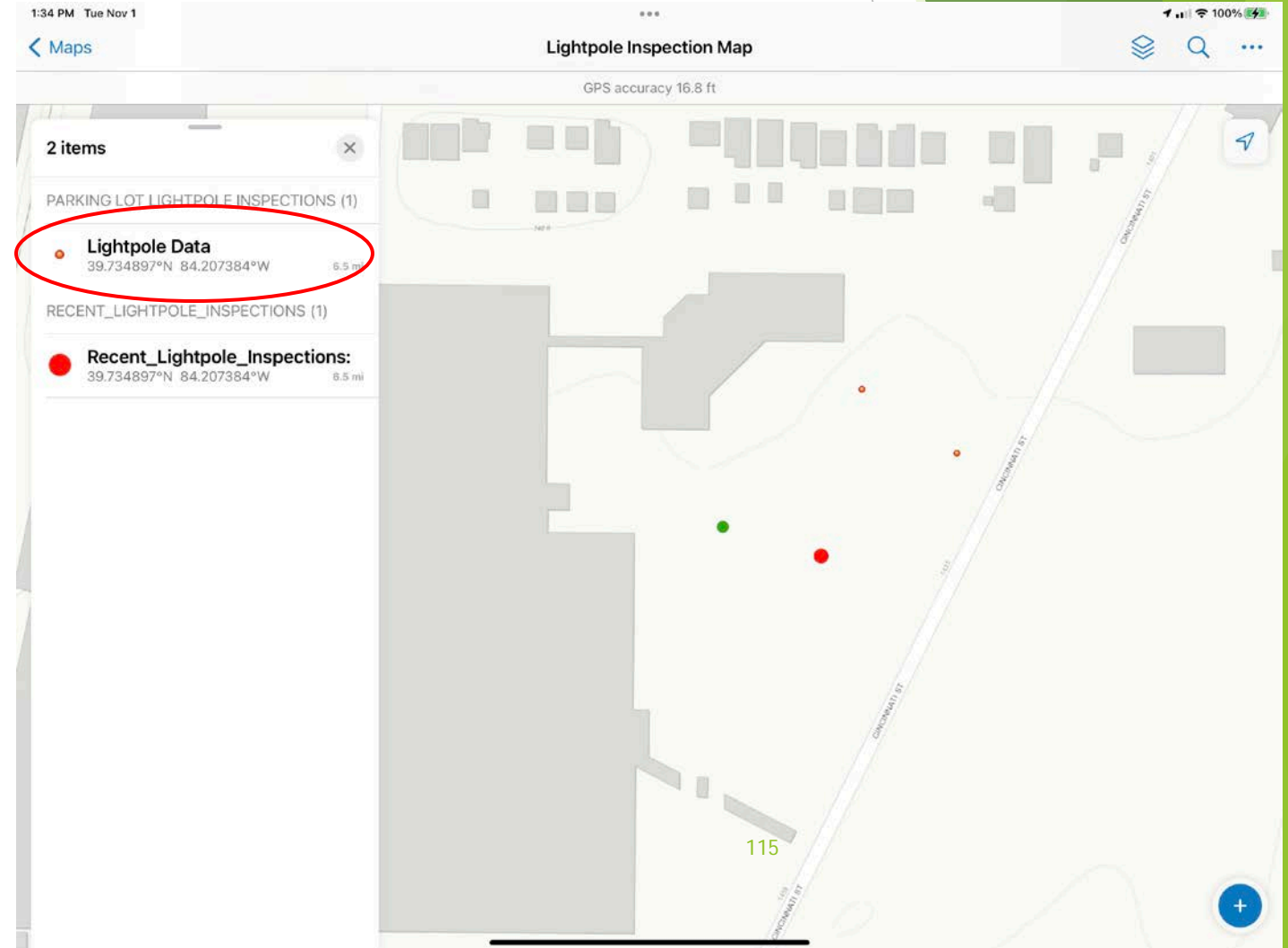
► Inspection Reports Tracking

- Return to Field Maps on mobile device to also see results
 - May need to reload map to see updates
- Add additional inspections and see the map update
- Dashboards can also be made from this data to share with managers or public



Building an Inspection Process - Field Maps

- ▶ Inspection Reports Tracking
 - ▶ In Field Maps, when a point is selected, both the inspection layer and the inspection indicator layer will show.
 - ▶ Select the inspection point to see inspections or create new inspections



Questions?

Doug Kotnik (dpk@laserinst.com)

Precision Laser & Instrument, Inc

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

Five Rivers MetroParks

Tom Harner, GISP (tharner@mvrpc.org)

MVRPC

