

## CLCC Conference Avenza Mapping Workshop at Wesleyan U in Middletown on 3/25/2023

For additional instruction: <https://youtu.be/Bc7WxEsPyRw>

The first 50 minutes is about how to make a map using GIS software followed by Avenza instruction.

While the 7 exercises below are a lot, I have scratched the surface of what is possible – go play with it!  
The sooner the better (like tomorrow) to reinforce what you learn today.

### Get Base Map into Avenza

Download to your phone the Avenza app (free or paid 'pro' version)

Open email (mine) in smart phone and save 'CLCC Map' to Avenza app

- See images below

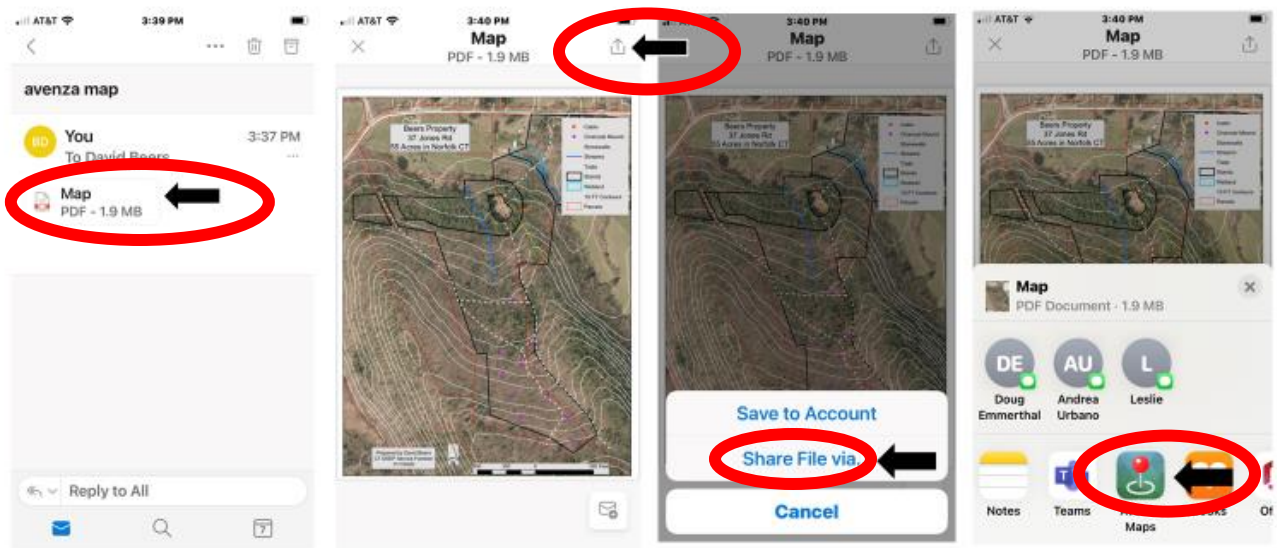
Open up Avenza and it should be listed under 'My Maps'

- If successful, map will show distance to map from your current location

Go ahead and start Exercise #1 below and complete as many exercises as time allows

## Get your field map into Avenza

Save map as a georeferenced pdf file and email to yourself



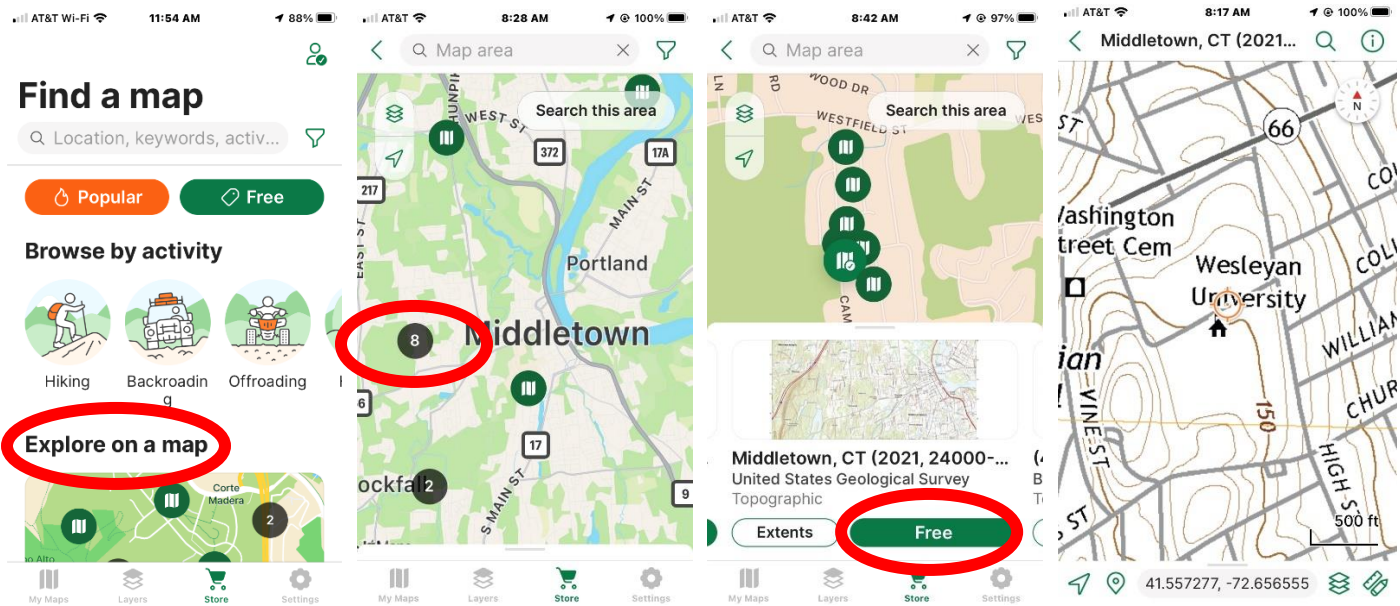
### Some advice on phone and Avenza Settings:

On your phone, open Settings and find Avenza Maps in the list of apps. Click on the Avenza icon, then open Location, making sure the app has access to location (While Using the App) and that Precise Location is turned on; under Photos, check that the app has access to all photos; under Camera, make sure the "Camera" toggle is on; and under Notifications, you will need to turn on Allow Notifications, as well as Banner Style, Sounds, and Badges.

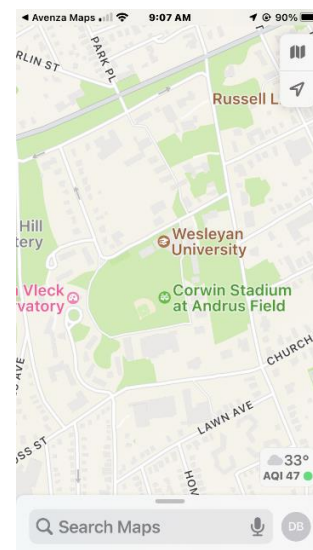
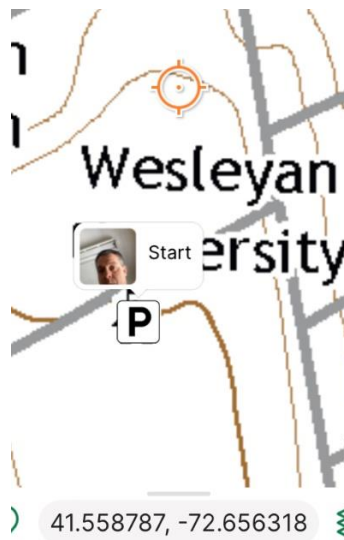
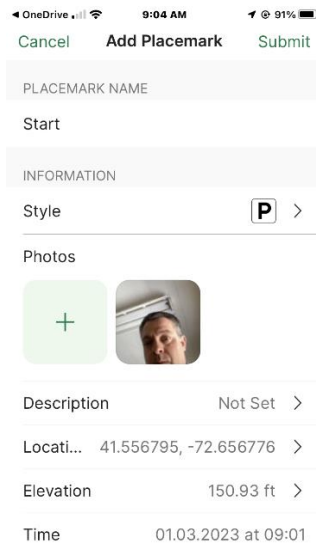
Then open the Avenza Maps application itself, choose Settings at the bottom of your screen, click on Display, then Crosshair Color. Change the crosshair color to orange. Return to the Settings screen, click on Units of Measurement, then make sure that Distance is in feet and that Area is in acres.

## Exercise #1: Open Avenza then open Store at bottom

- Open the 'Explore on a map' option and click 'Search this area'
- Find the Middletown 2021 topographic map (click on #8)
- Click 'Free' button to download and then open map

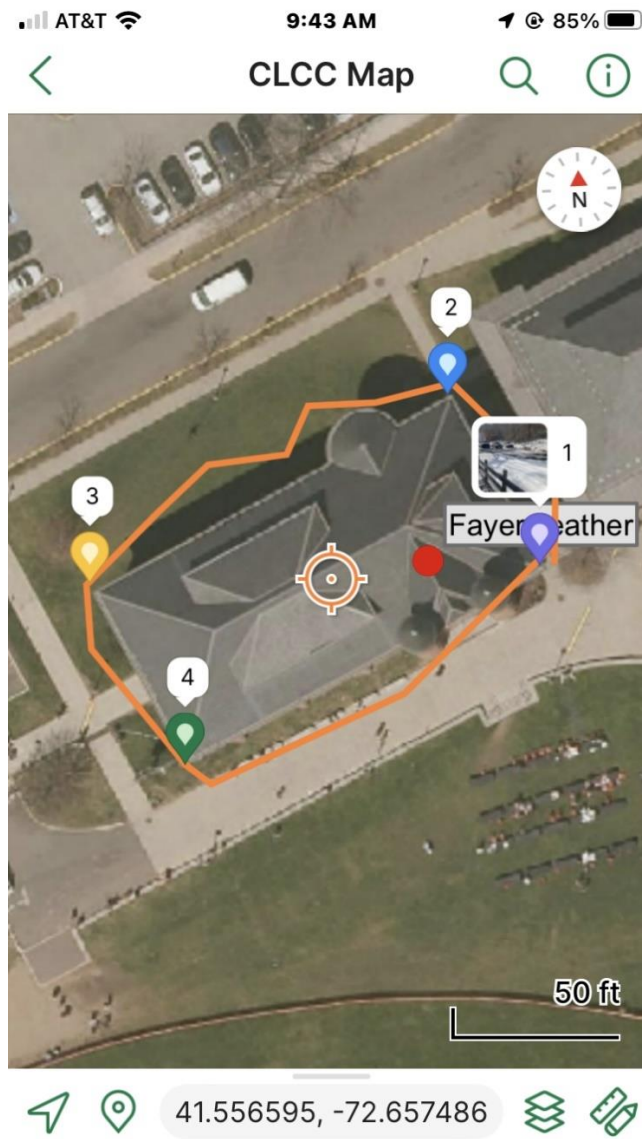


- You are the blue dot on the map - Center the dot to the bullseye symbol with hollow triangle
- Take a waypoint: Pin symbol
  - Always takes a waypoint at the crosshair
    - Can move the crosshair to a different location that is not the blue dot
  - Change name to 'Start'
  - Change Style to a parking symbol (scroll down to 'P' parking symbol)
  - Hit 'Submit'
  - Click on waypoint to edit
    - Add a photo to waypoint by clicking on '+' under 'Photos'
      - Add photo – Camera – Take photo and Use Photo – Back – Submit/Close
- In main menu choose 'Open View in Maps App' to see location on big map
- Please look up from your phone when done and we will start Exercise #2 together



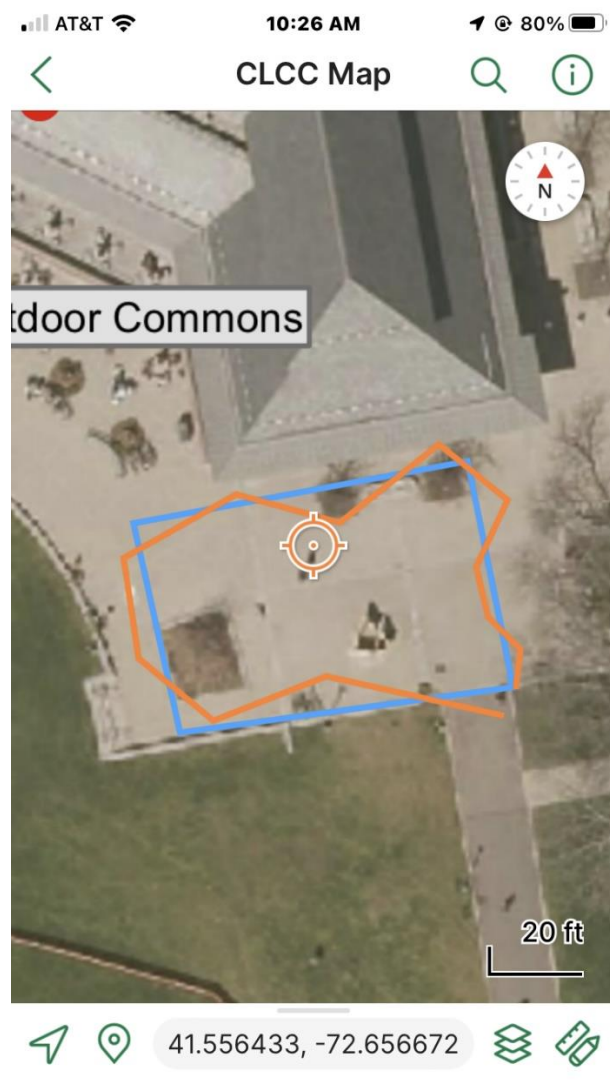
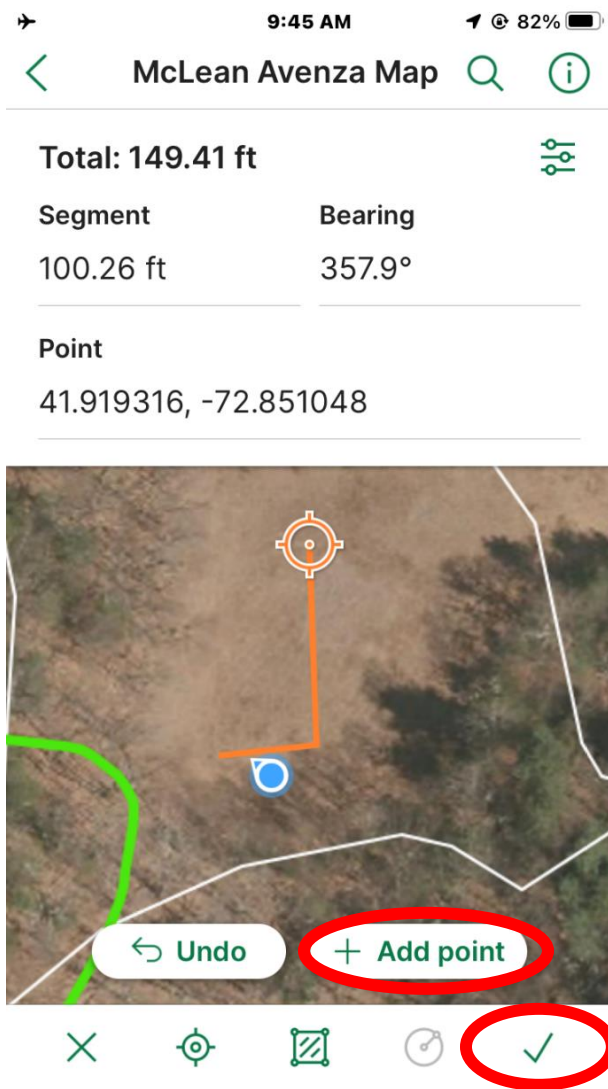
## Exercise #2: Tracking and Waypoints

- Close the topo map and open the 'CLCC Map' in Avenza
- Works best when moving and airplane mode saves battery
- Menu – Record GPS Tracks – Start Tracking – Swipe menu down to see map
- When done, swipe up menu and hit 'Stop Tracking' red button
- Take waypoints at the corners of Fayerweather building while tracking
- Name and change appearance of waypoints
  - 1,2,3,4 with each a different color pin
  - Take a photo waypoint of the outdoor commons at waypoint #1
- Stop tracking at point #4
- Zoom in to take screen capture and save it as a photo
  - See sample image below
- If time allows, please start Exercise #3 when done



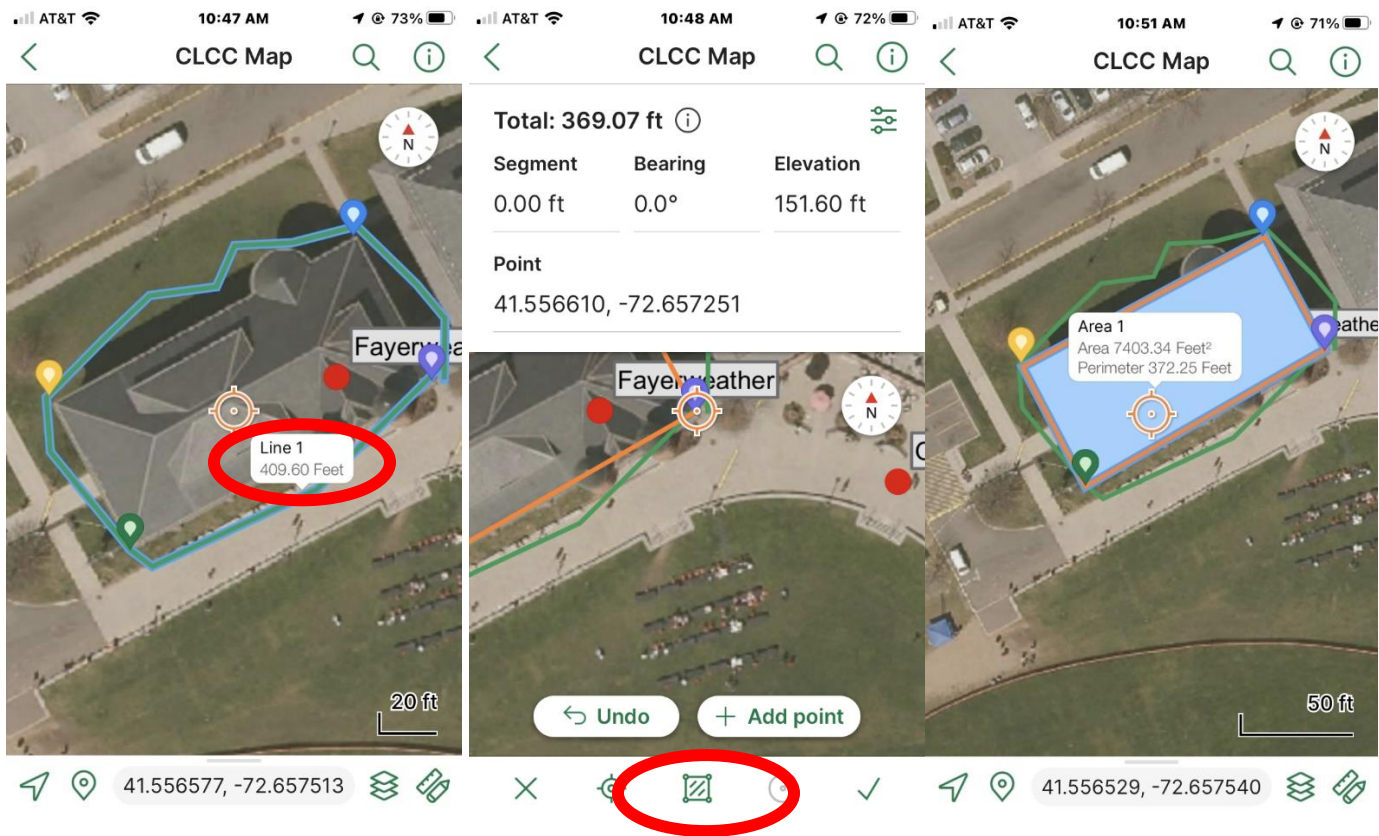
### Exercise #3: Mapping a sample grid

- Use 'Draw and Measure' to layout a shape in the field (square, rectangle, triangle)
  - '+ Add point' to start and at each corner and check mark when done
  - Space segments even distances using measure window to gauge distance
  - Segments are either 50' or 100' long
  - Label 'Transect' and make it blue
- Walk lines while tracking is turned on
  - Use map to stay on grid lines as best you can
  - Swipe up menu and hit the red stop button when done tracking
- Please stay in the outdoor commons area for this
- Zoom in to take screen capture and save it as a photo
- If time allows, please start Exercise #4 when done



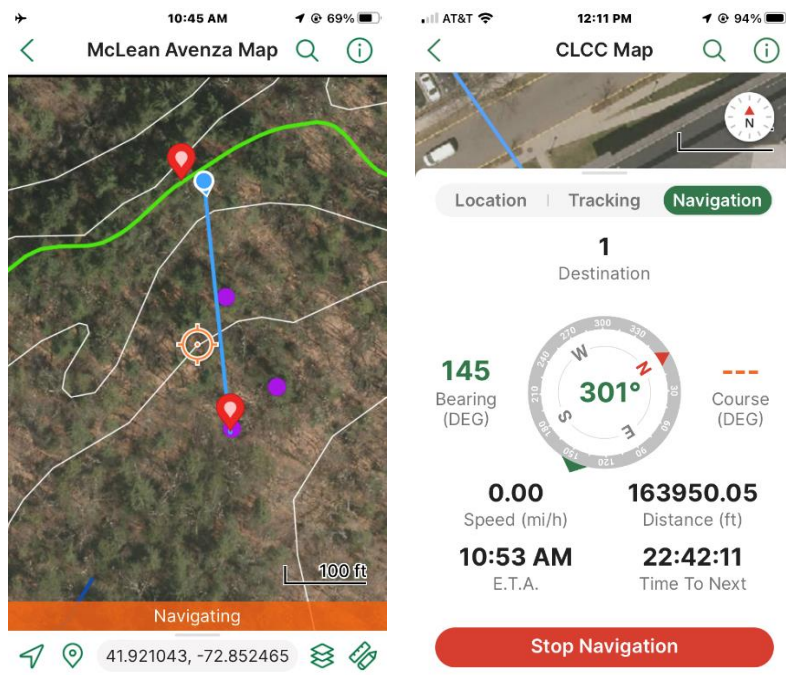
• **Exercise 4:** Mapping an area (No walking – all on phone)

- Using the Track from Exercise #2 around Fayerweather
- Change the color to green
- What is the perimeter?
- What is the acreage?
  - *Avenza Pro* allows you to click on the track upon completion and calculate area
  - Avenza Free you can use Draw and Measure to outline area then hit area button (not check mark) when done drawing
  - Click on area and change area measure to square feet
- **If time allows, please start Exercise #5 when done**



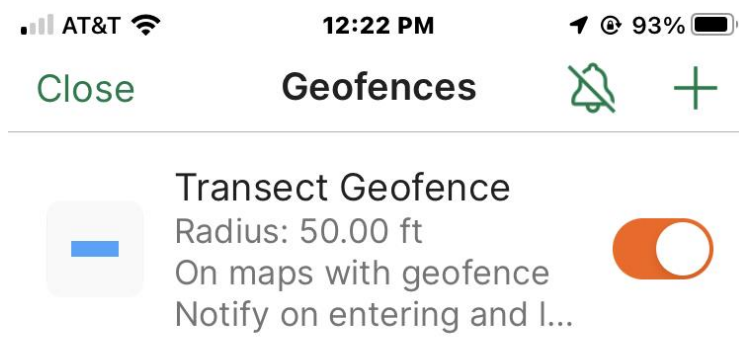
## Exercise #5: Navigate to a feature

- Use waypoint #1 from Exercise #1 (the photo waypoint)
  - Menu – Navigate to a Destination – Navigate to Feature – Layer – ‘1’
    - Also works with tracks (lines) and polygons
  - Slide compass down to use map to follow line to the waypoint
    - Line disappears as you walk closer – swipe up to stop navigating
    - It will let you know when you have arrived
    - Slide up Navigation menu and click red ‘Stop Navigating’ button
    - If time allows, please start Exercise #6 when done



## Exercise #6: Geofences

- Use ‘Monitor Geofences’ to create a 50’ buffer alert of the ‘Transect’ layer
  - Blue polygon from Exercise #3
- Monitor Geofences – ‘Add Geofence’ – Line – Layer - ‘Transect – 50’ distance – Save - Close
  - Geofences are now turned on until you turn them off with toggle or swipe to delete
- Walk towards the Transect polygon
- Ding sound and/or vibrate with ‘Entering GeoFence’
- If time allows, please start Exercise #7 when done



- **Exercise #7: Leaving Geofence**

- Starting at the center of your 'Transect' polygon walk back towards Fayerweather,
  - Turn on tracking for this
  - Leave the 'Transect' geofence turned on during this exercise
- Ding sound and/or vibrate with 'Leaving GeoFence' and then stop tracking
  - Distance of the track?

