

CLCC Conference Avenza Mapping Workshop at Wesleyan U in Middletown on 3/23/2024

Pre-Workshop Instructions

Please do this page **before** the workshop. 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!

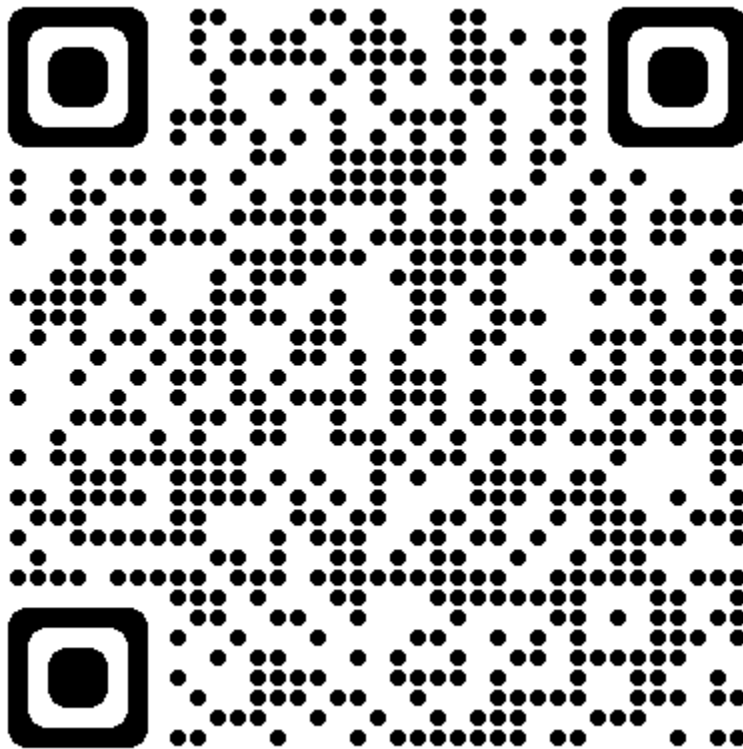
The sooner the better (like tomorrow) to reinforce what you learn today.

For help, please contact me at David.Beers@ct.gov or 860-965-8975

Get Base Map into Avenza

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

Save 'CLCC Map' to Avenza app – called 'Avenza Maps', using the QR Code Below



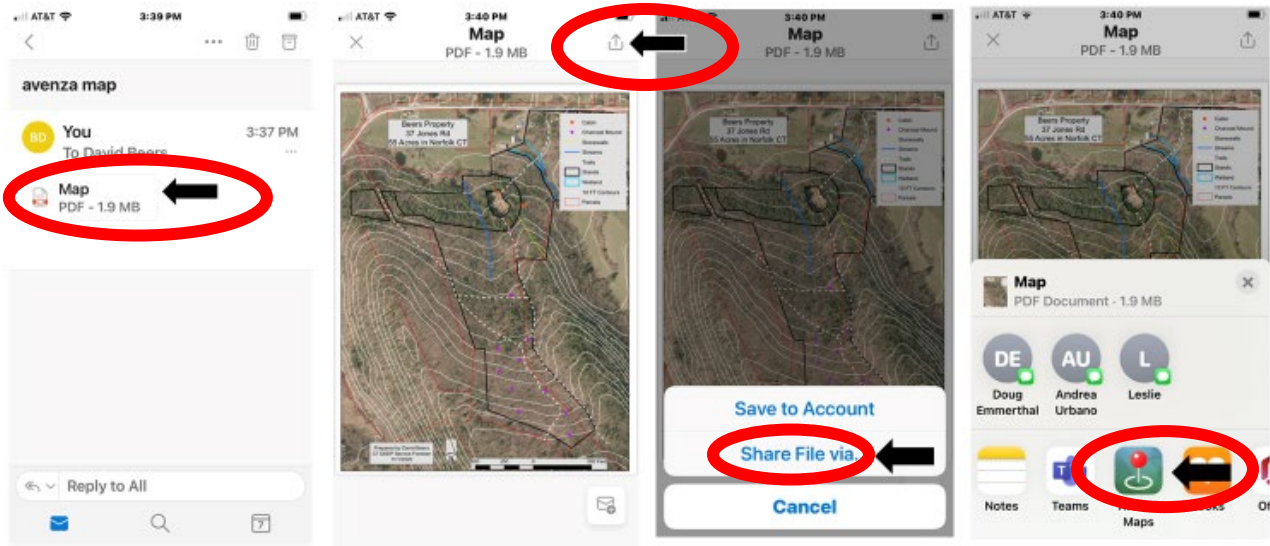
Open up Avenza and 'CLCC Map' should be listed under 'My Maps'

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

You can also email 'CLCC Map' to yourself as an attachment and use instructions below after you open your email.

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.

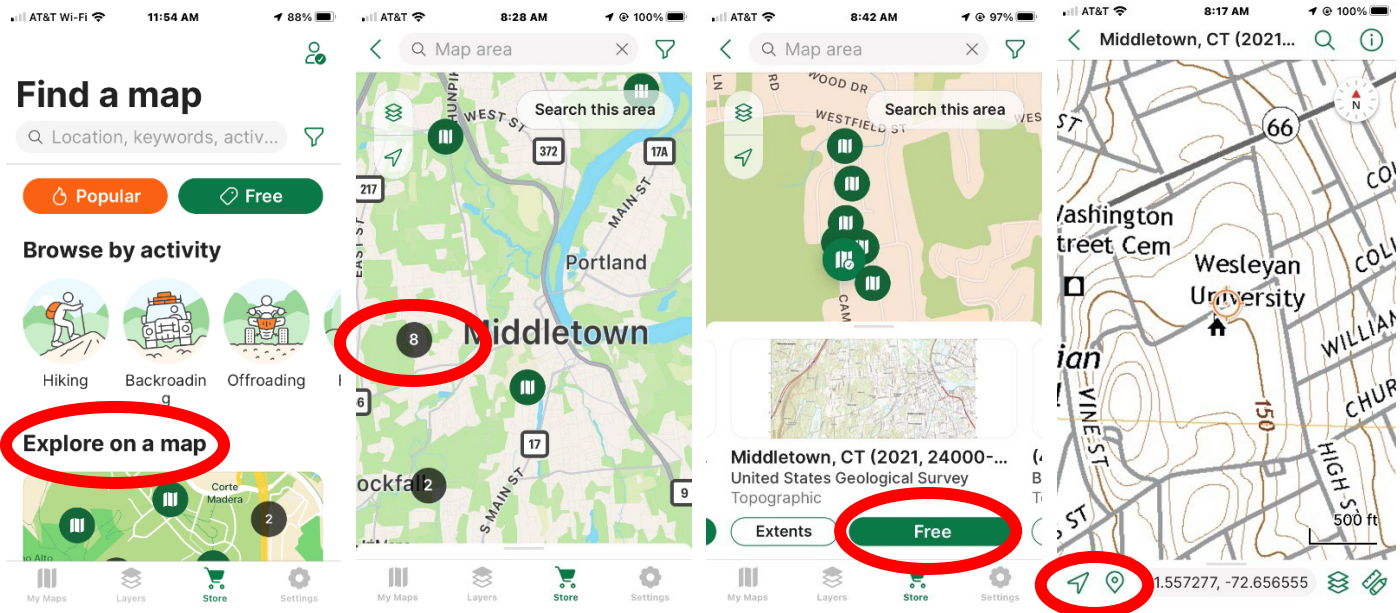
Workshop Instructions (11:15 to 12:30 in the Outdoor Commons)

We are here to **begin** learning this powerful mapping tool with some hands-on exercises. Attached at the back of your handout is a print copy of the CLCC Map and instructions on how to make maps to use in Avenza on the CT Eco Website's Advanced Map Viewer. Other sources of geo-reference pdf maps for Avenza are the Avenza Store (topo maps, State Parks), some town websites, Follow the Forest website, Google Earth and other apps. Please take the Master Woodland Manager course for more mapping/GIS instruction – info in your handout.

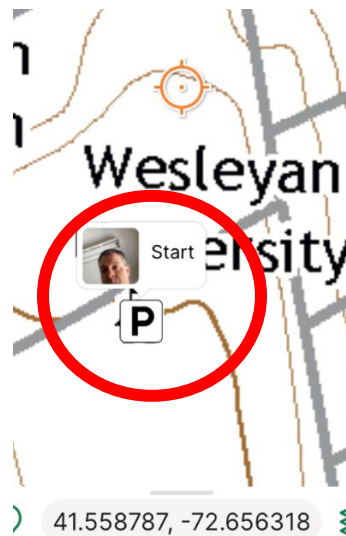
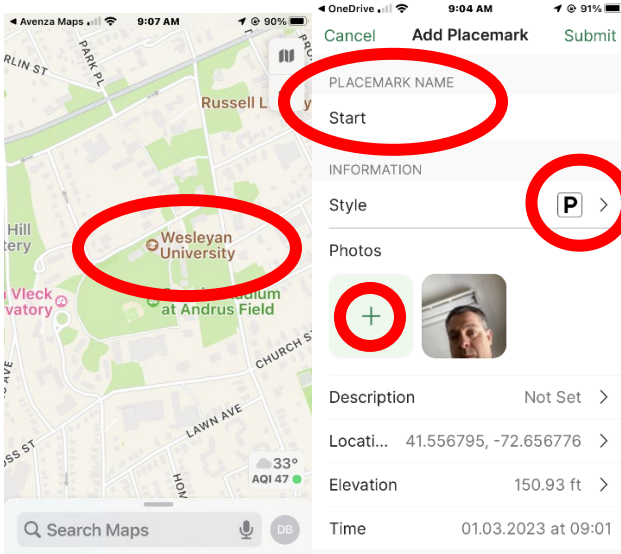
- If you do not have the CLCC Map on your phone in the Avenza app, please stand aside for help
- I will review Exercise #1 before starting
 - click = hit = select and waypoint = placemark
- Once everyone has completed Exercise #1, I will review Exercise #2 before starting
- Once everyone has completed Exercise #2, I will review Exercises #3-7
- Please complete as many of exercises #3-7 as you can
- Our session ends at 12:30, but you are welcome to work into your lunch time
- I will be wandering around helping until everyone is gone
- **Go play with it (like tomorrow) to reinforce what you learn today!**

Exercise #1: The Avenza Store and your first waypoint (placemark)

- 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
 - The 'CLCC 2023 Map' was put on here by one of last year's students



- You are the blue dot on the map - Center the dot to crosshair with hollow triangle (screen bottom)
- Take a waypoint (placemark): Use the Pin symbol (screen bottom)
 - It always takes a waypoint at the crosshair
 - Can move the crosshair to a different location that is not the blue dot for a waypoint
 - Change name to 'Start'
 - Change Style to a parking symbol (scroll down to 'P' parking symbol) and hit 'Submit'
 - Click on waypoint on the map to edit
 - Add a photo to waypoint by clicking on '+' under 'Photos'
 - Add photo – Camera – Take a photo and 'Use Photo' – Back – Submit/Close
- Please look up from your phone when done and we will start Exercise #2 together



Exercise #2: Tracking and Waypoints

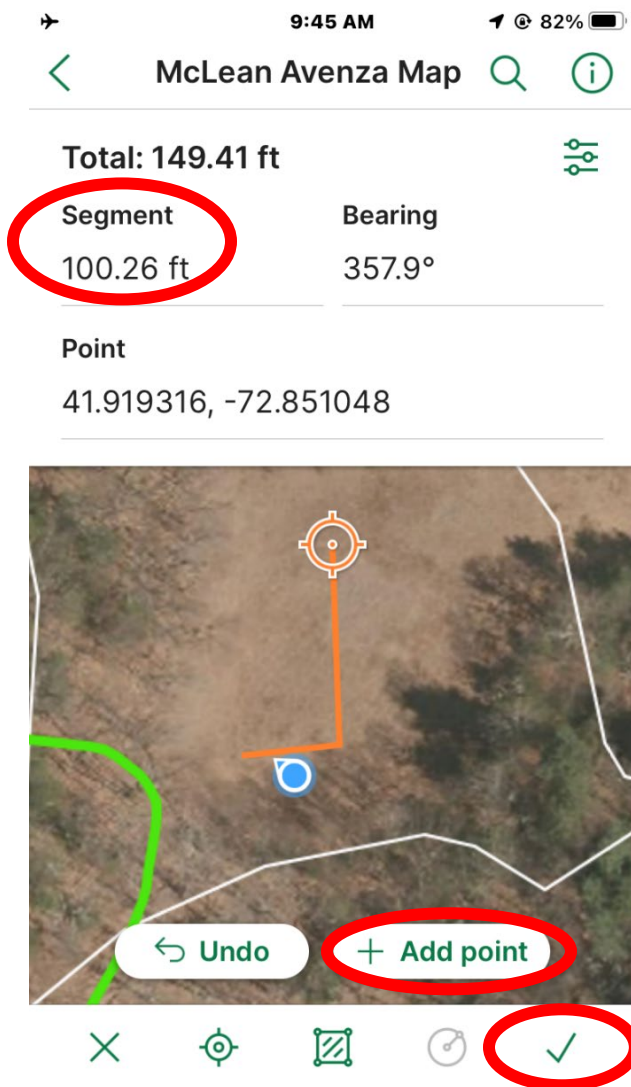
- Close the topo map and open the 'CLCC Map' in Avenza
- Works best when moving and airplane mode saves battery
- Menu – Record GPS Tracks – Start Tracking – Swipe menu down to see map
- When done, swipe up menu and hit 'Stop Tracking' red button
- Take waypoints at the corners of Fayerweather building 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 when done
- Zoom in to take screen capture and save it as a photo
 - See sample image below

○ Please look up from your phone when done and we will start Exercise #3 together

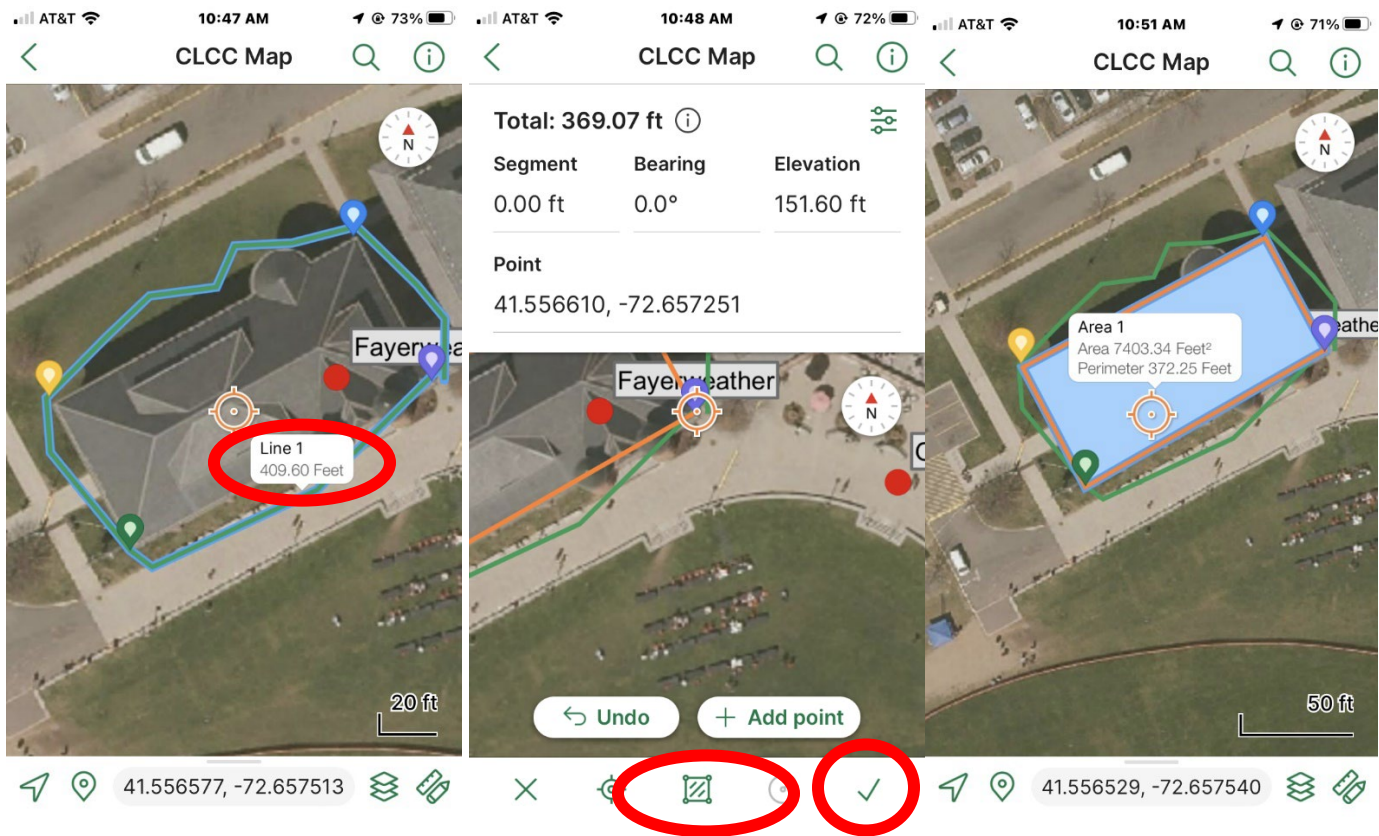


Exercise #3: Mapping a sample grid

- Use 'Draw and Measure' menu choice to layout a square in the field
 - '+ Add point' to start, **and at each corner**; and check mark when done
 - Move the crosshair on your phone screen to make each corner
 - Space segments even distances using measure window to gauge distance
 - Segments are 100' long
 - Label 'Transect' and make it blue
- Walk lines while tracking is turned on – walk slow but do not linger
 - 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
- Please start Exercise #4 when done



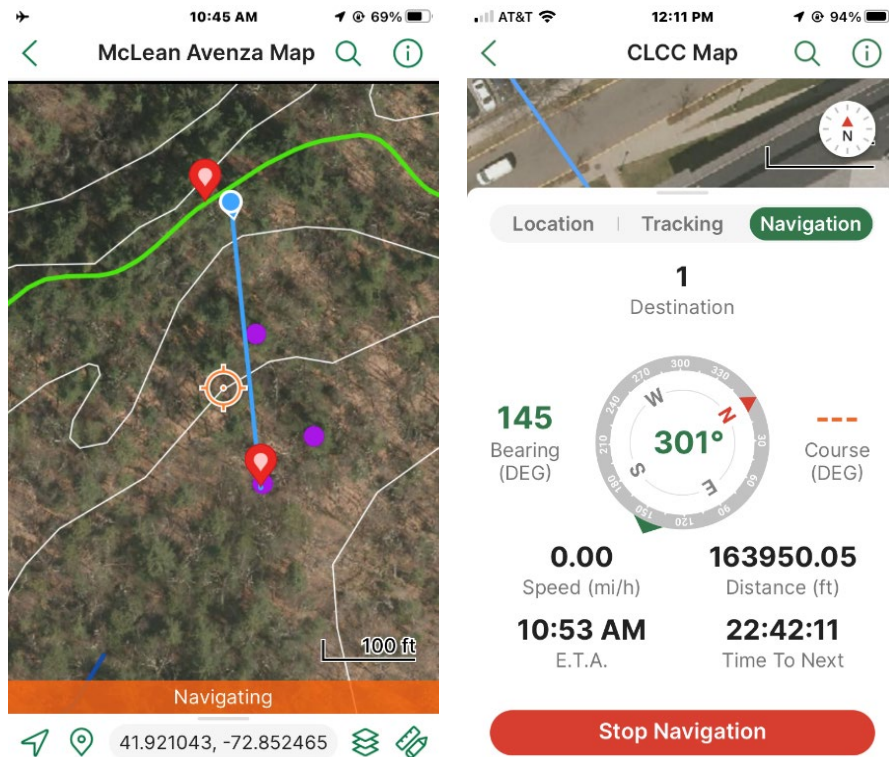
- **Exercise 4: Mapping an area (No walking – all on phone)**
 - Using the Track from Exercise #2 around Fayerweather
 - Change the color to green
 - What is the perimeter?
 - What is the acreage?
 - Use Draw and Measure to outline area of the track and then hit area button (not check mark) when done drawing, and then hit check mark
 - Polygon does not need to close for this to work
 - Click on area and change area measure to square feet
 - Please start Exercise #5 when done



Area Button

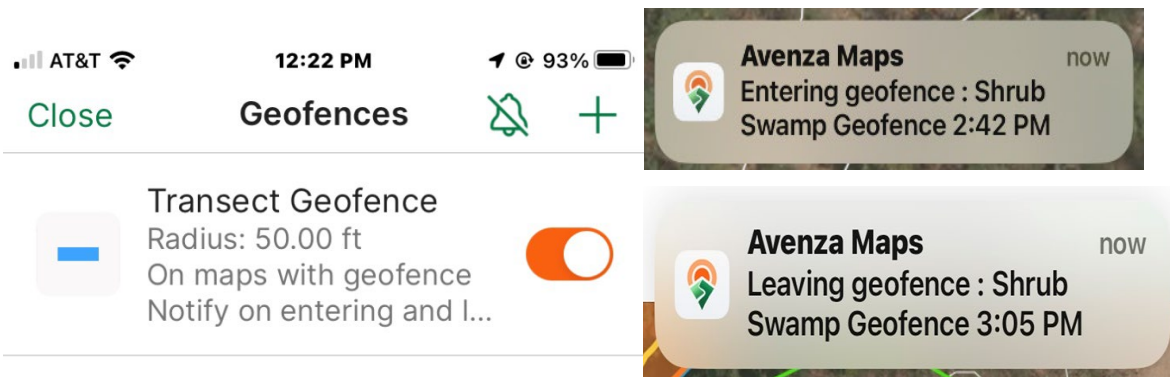
Exercise #5: Navigate to a feature

- Use placemark #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 ‘You have reached 1’
 - Slide up Navigation menu and click red ‘Stop Navigating’ button when done
 - Not necessary if you have arrived
 - Please start Exercise #6 when done



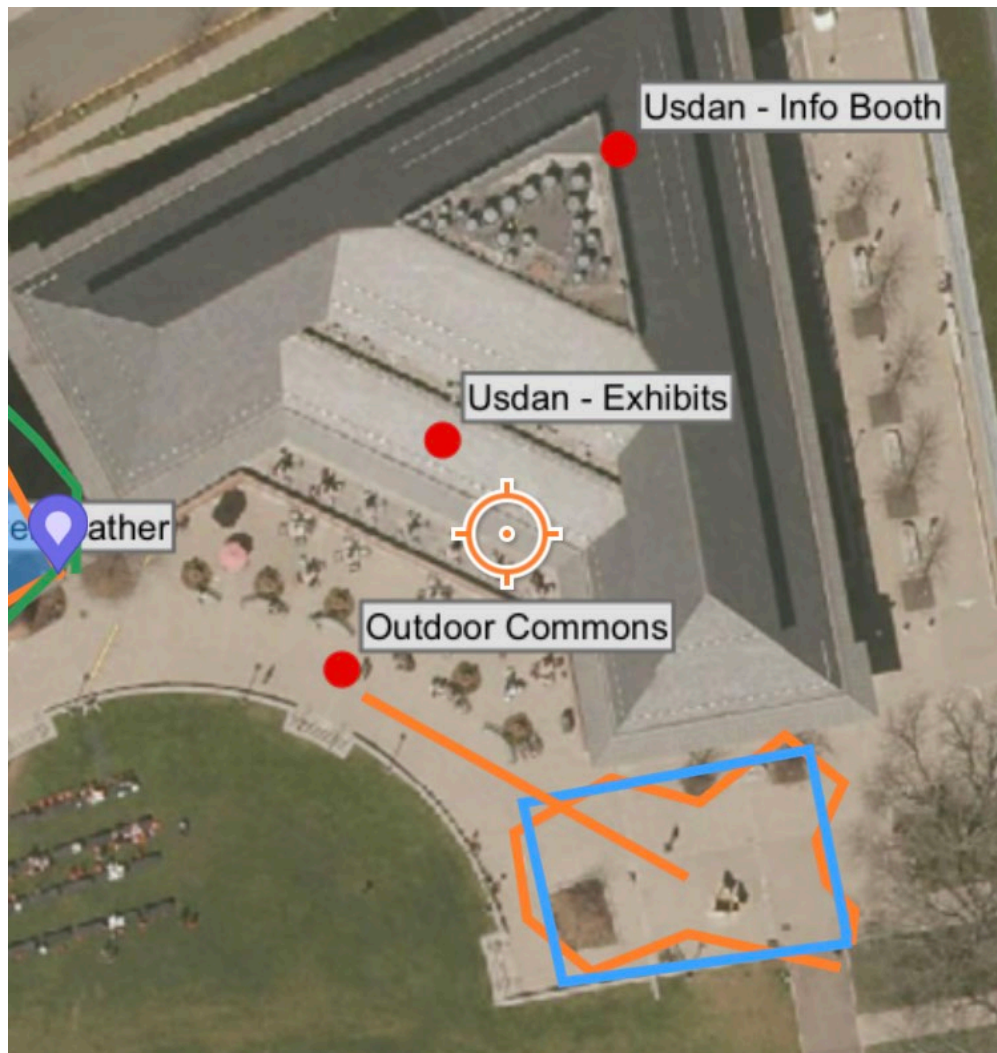
Exercise #6: Geofences

- Walk over 100' away from Fayerweather building
- Use 'Monitor Geofences' to create a 50' buffer alert of the blue square 'Transect' from Exercise #3
- Menu - 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 Transect – use phone to navigate
- Ding sound and/or vibrate with screen notification 'Entering Geofence: Transect 12:30PM'
- Leave Geofence turned on for the next exercise
- 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?



Knowledge is complete when we consistently apply it.

Leave Your Mark on Connecticut's Woodlands

Do you own or manage woodland of any size?

Gain woodland management knowledge and skills that will benefit your family, wildlife, and the environment.

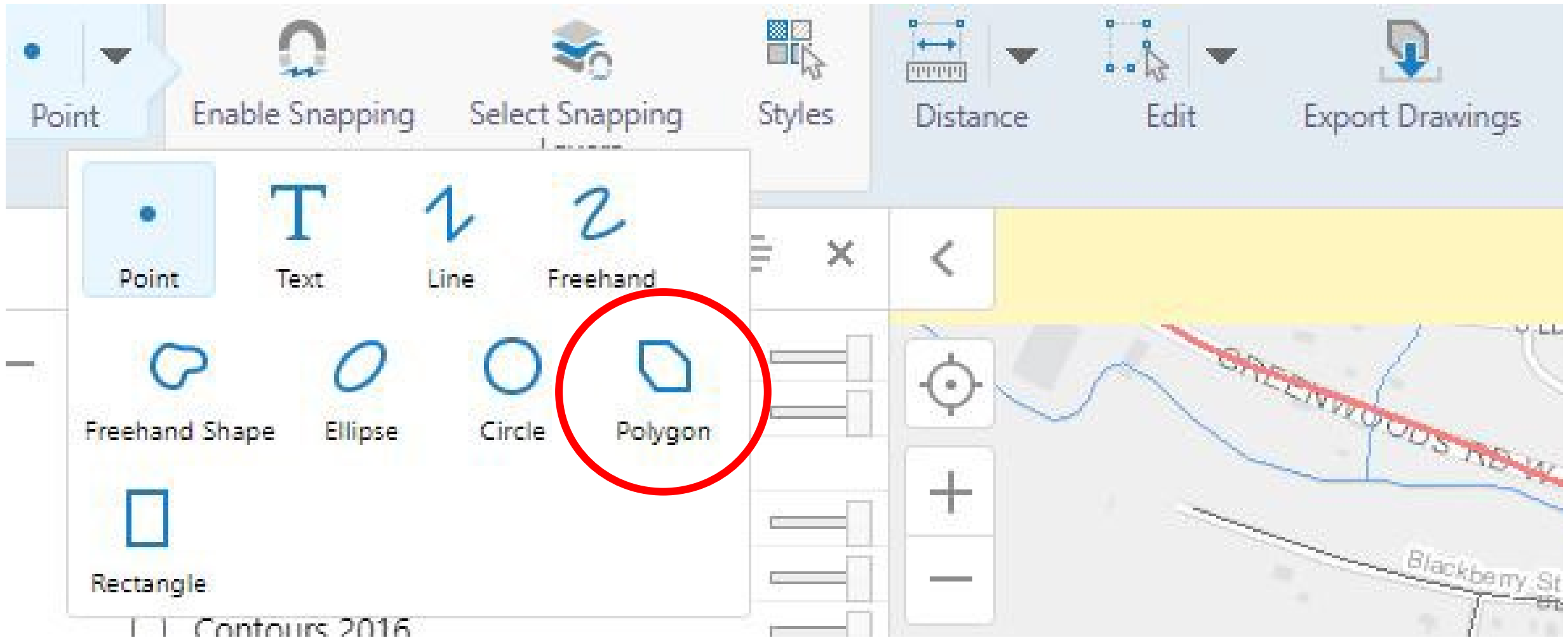


Master
Woodland
Manager

For more Information and to apply, contact
education@ctwoodlands.org
or visit www.ctwoodlands.org



Drawing Menu



Polygon

Enable Snapping

Select Snapping Layers

Styles

Select Drawing Style ✕

Type:

Choose a style ▾

Solid Outline Red

Library: Outline ▾



Print/Export/Share



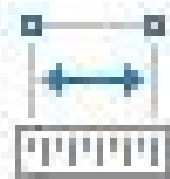
Distance



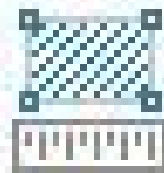
Erase



Export Drawings



Distance



Area

Area Tool – 0.4 Acres



Print/Export/Share

Map

Find Data

Coordinates

Draw

Print/Export/Share



Print



Export



Share

Print, Export and Share



The **Print** button opens the **Print Map** panel. The panel currently has the following choices:

- **Select Layout.** The only option currently is 8.5 x 11 landscape. If you need another size, send us an e
- **Output Format.** The current choices are pdf and jpeg.
- **Map Scale.** Choose one from the list. They options are based on the [Google/Bing tiling scheme](#).
- **Add a Map Title.** optional.
- **Add Your Own Notes.** optional.

Click **Print**. The file is created and the **Open File** button appears. Clicking it opens the map in the print legend containing the layers that are visible, a north arrow, scale, scale bar, your notes and a disclaime

If you like the map, use your browser to save the file to your computer.

Just a reminder that sometimes a [screenshot](#) does the job better than any prepackaged printing.



The **Export** button opens the **Export a Map Image** dialogue.

- **Select Image Format.** Options include BMP, JPEG, PNG, TIFF, GeoTIFF, PDF.
- Include Georeference Data. Coming Soon!



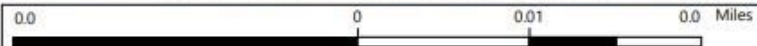
The **Share** button opens a list to share a link of your map including the current zoom level, extent and v



Legend

Light Gray Canvas Base

1: 564



Notes

Export a Map Image x

Select Image Format

TIFF v

Include Georeference Data

Create Image



Export.prj



Export.tfw



Export

Convert Geo Tiff files to Geo Pdf files

- 1) Unzip the saved 'Export Tiff' folder
- 2) Use a file conversion tool on all 3 files
 - Many available on the web
 - Some charge a fee
- 3) Get into your phone Avenza App
 - Take the Avenza Class!

Your conversions limit is exceeded

You have exceeded data size limit to convert - which is 5 MB per month. Your conversion is charged in this case. If you are doing one-off conversion, the best for you is to pay by credit or debit card right here. In other cases please consider to register suitable [monthly plan](#) or [additional package](#). If you have already registered any plan or package, please [Sign In](#).

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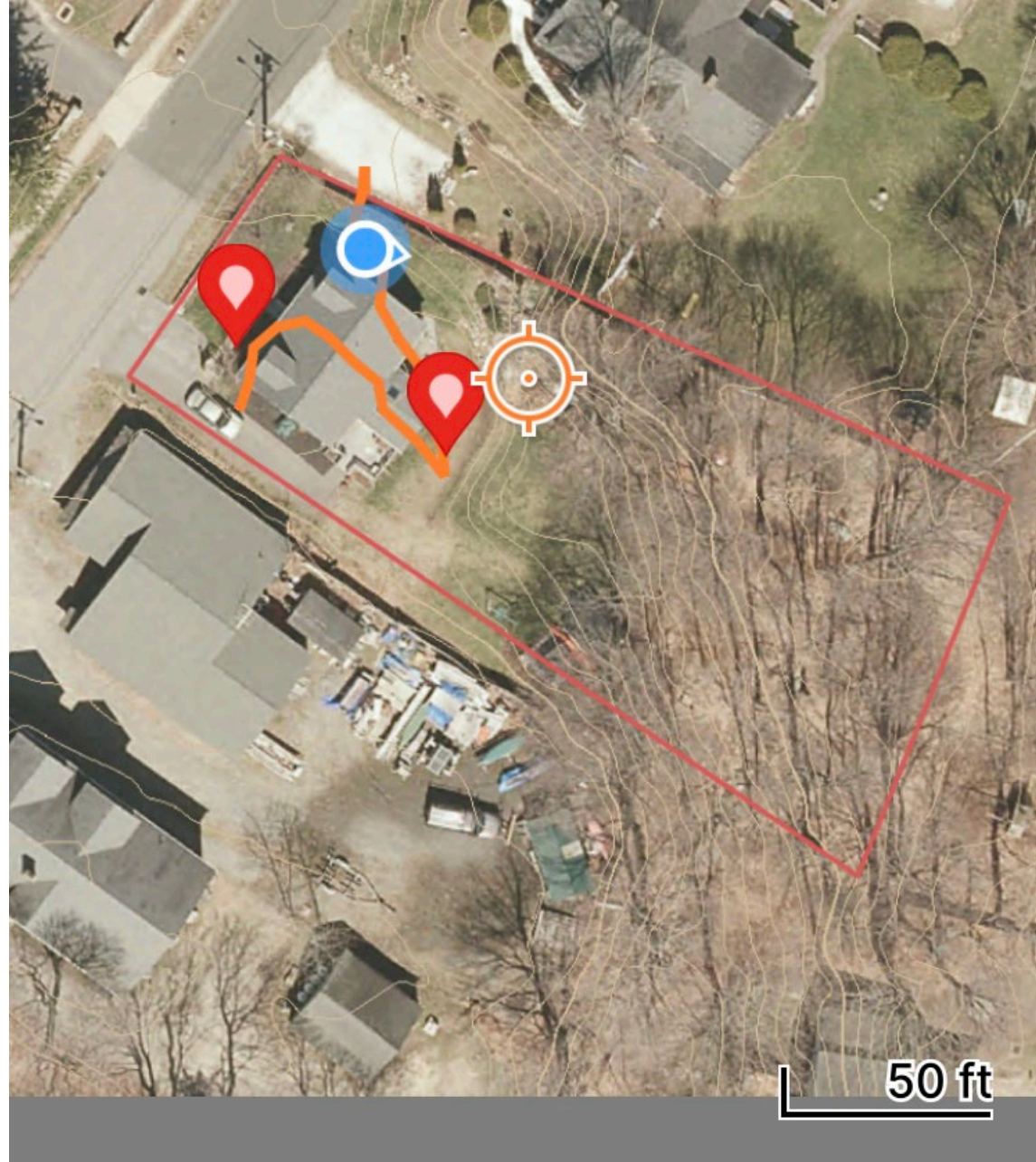
EMAIL

Email to send receipt

Choose Monthly Plan OR

Pay \$2.48 USD and Convert!

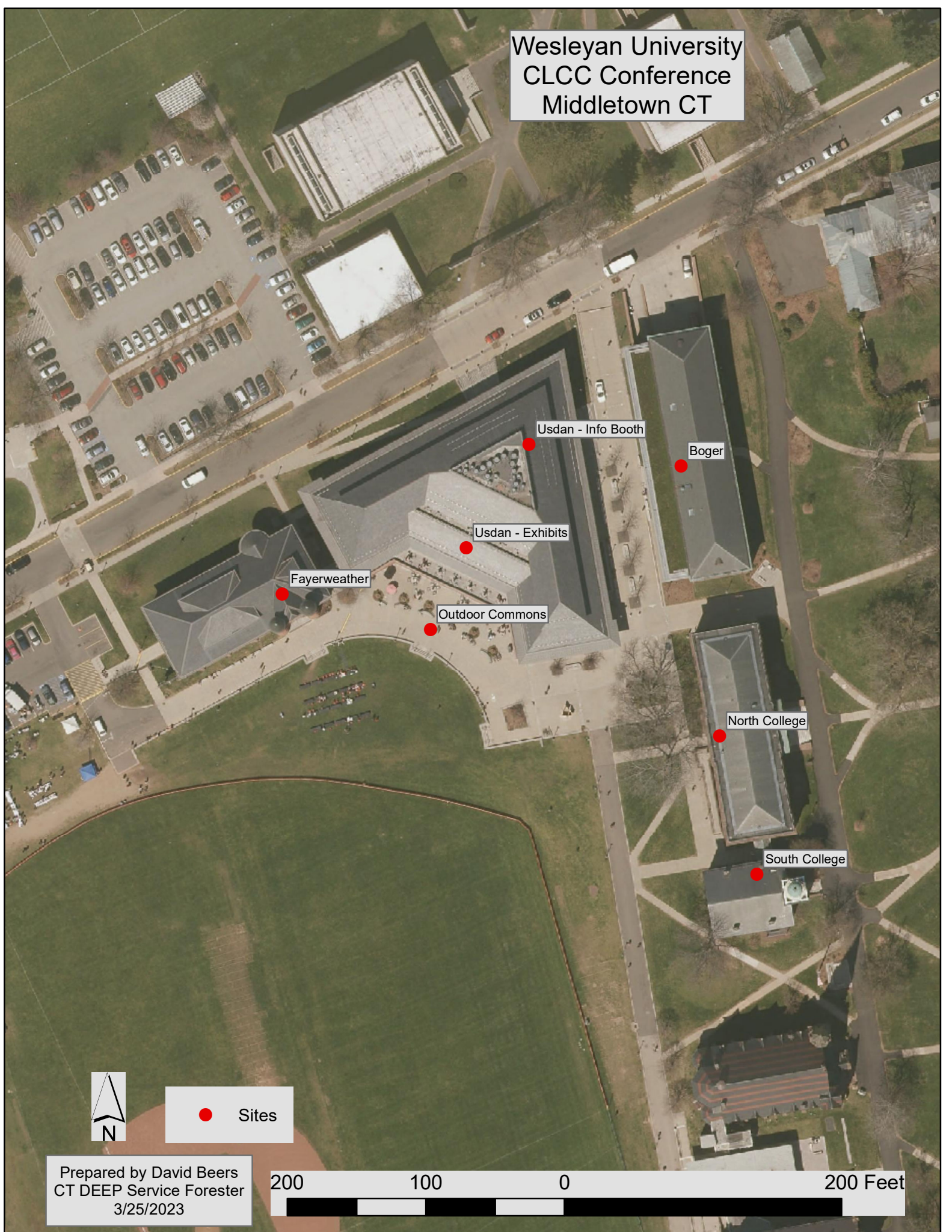
Map in Avenza



41.990153, -73.197117



Wesleyan University
CLCC Conference
Middletown CT



Usdan - Info Booth

Boger

Usdan - Exhibits

Fayerweather

Outdoor Commons

North College

South College



Sites

Prepared by David Beers
CT DEEP Service Forester
3/25/2023

