SITE SCAN FOR ARCGIS

By

Ryan Moore

Manager of GIS

Rochester Public Utilities (RPU)

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WHAT IS SITE SCAN FOR ARCGIS?

- Site Scan for ArcGIS provides drone flight planning, fleet management, image processing, and analysis capabilities as Software as a Service (SaaS). Site Scan delivers a complete end-to-end solution for drone imaging projects.
- With Site Scan, drone operators can:
  - Plan and execute drone flights and manage flight data and metadata to support project requirements
  - Manage their drone fleet to run safe and efficient drone operations
  - Generate 2D and 3D mapping and analytics products from drone imagery
  - Publish drone mapping products to ArcGIS Online, ArcGIS Enterprise, and Autodesk BIM 360

Source: Site Scan for ArcGIS: Frequently Asked Questions - Esri

SITE SCAN APPLICATIONS

Site Scan Flight Planning

Mobile application

Site Scan Manager

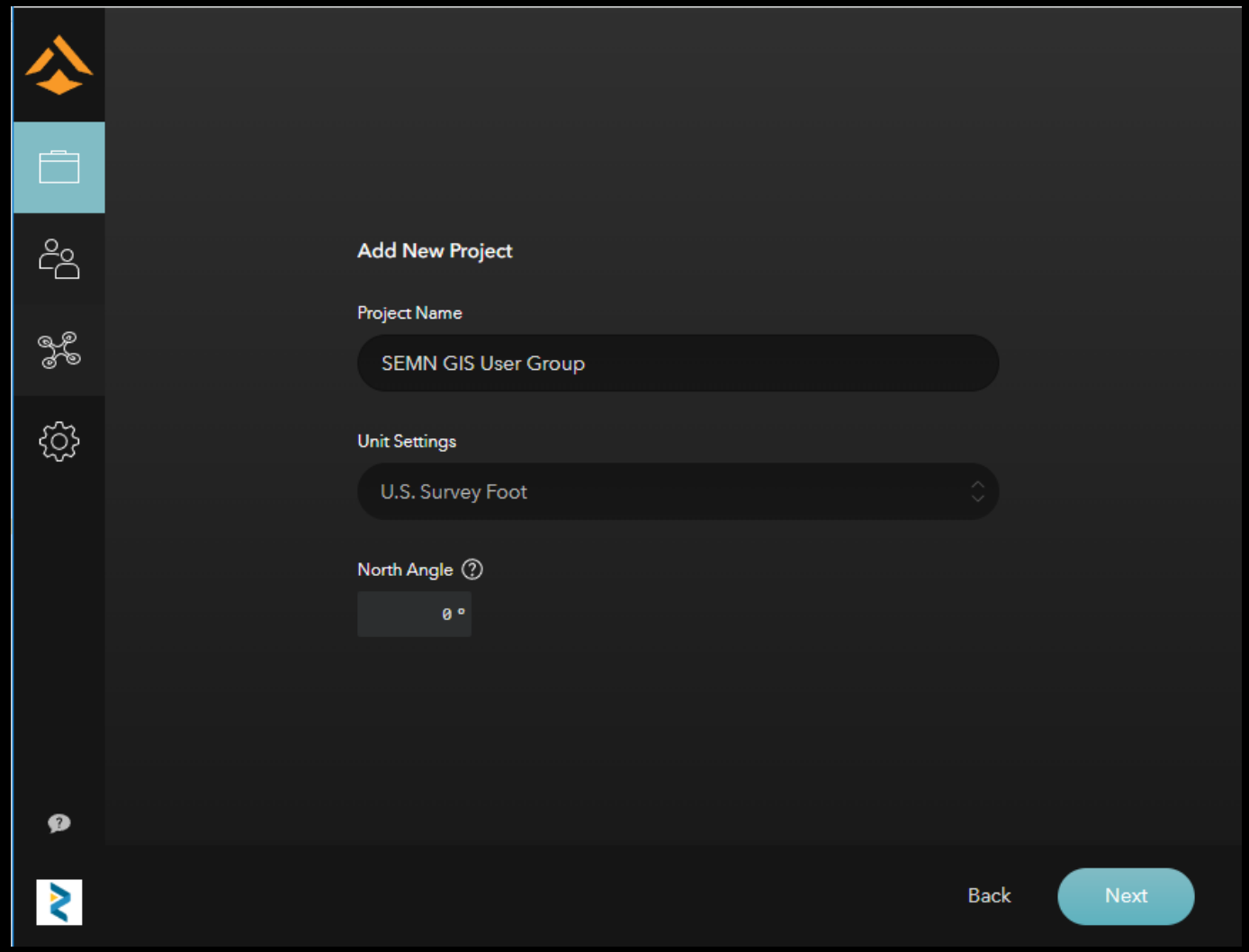
Web application
(SaaS)

Site Scan Manager. Like ArcGIS Online, Site Scan Manager is a software as a service (SaaS) application. Because this software is served to you through a web browser, you do not need to download or install the software to use it.

GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a new project

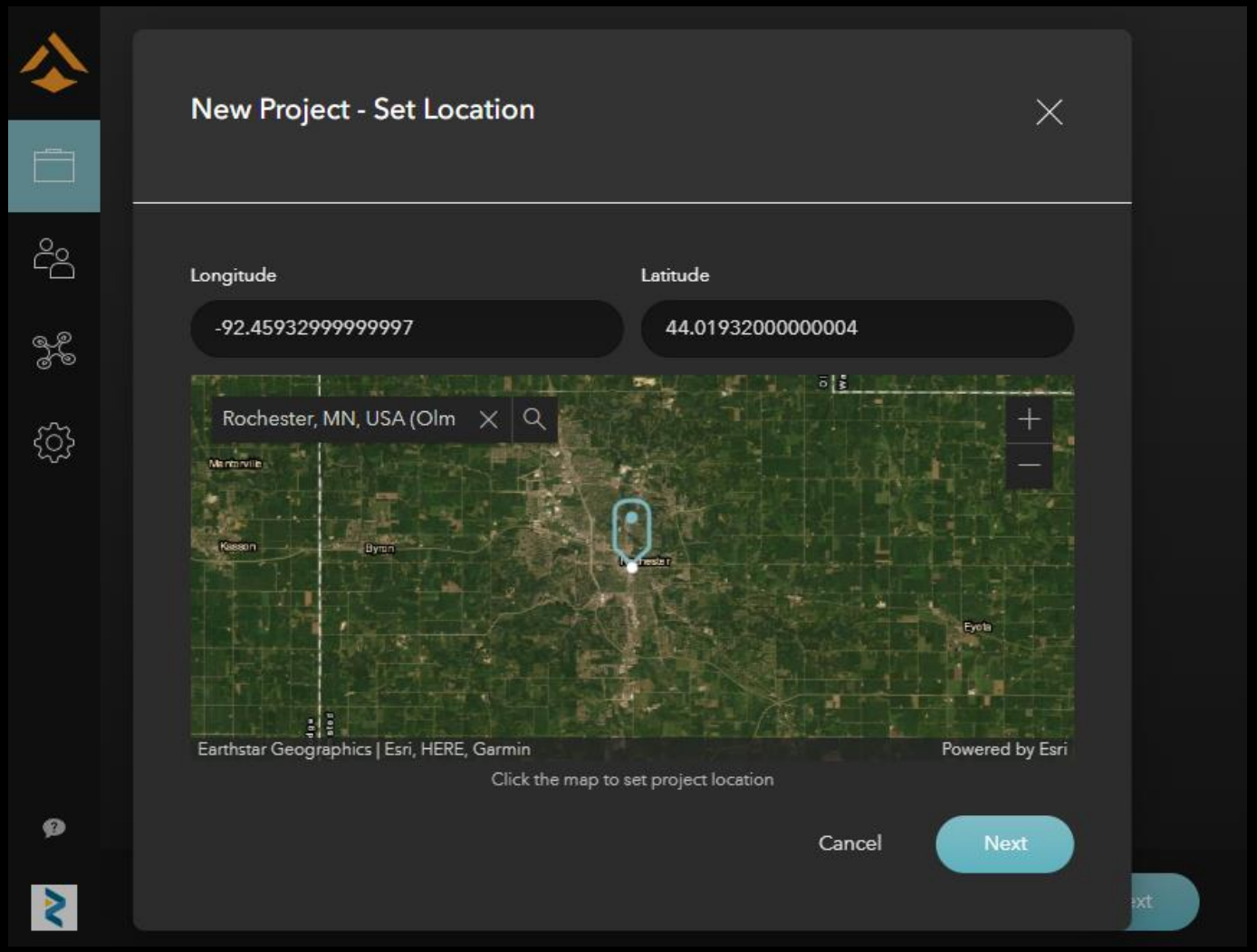
- Click the Project Icon
- Click New Project
- Enter Name and Units
- Click Next



GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a new project (Cont.)

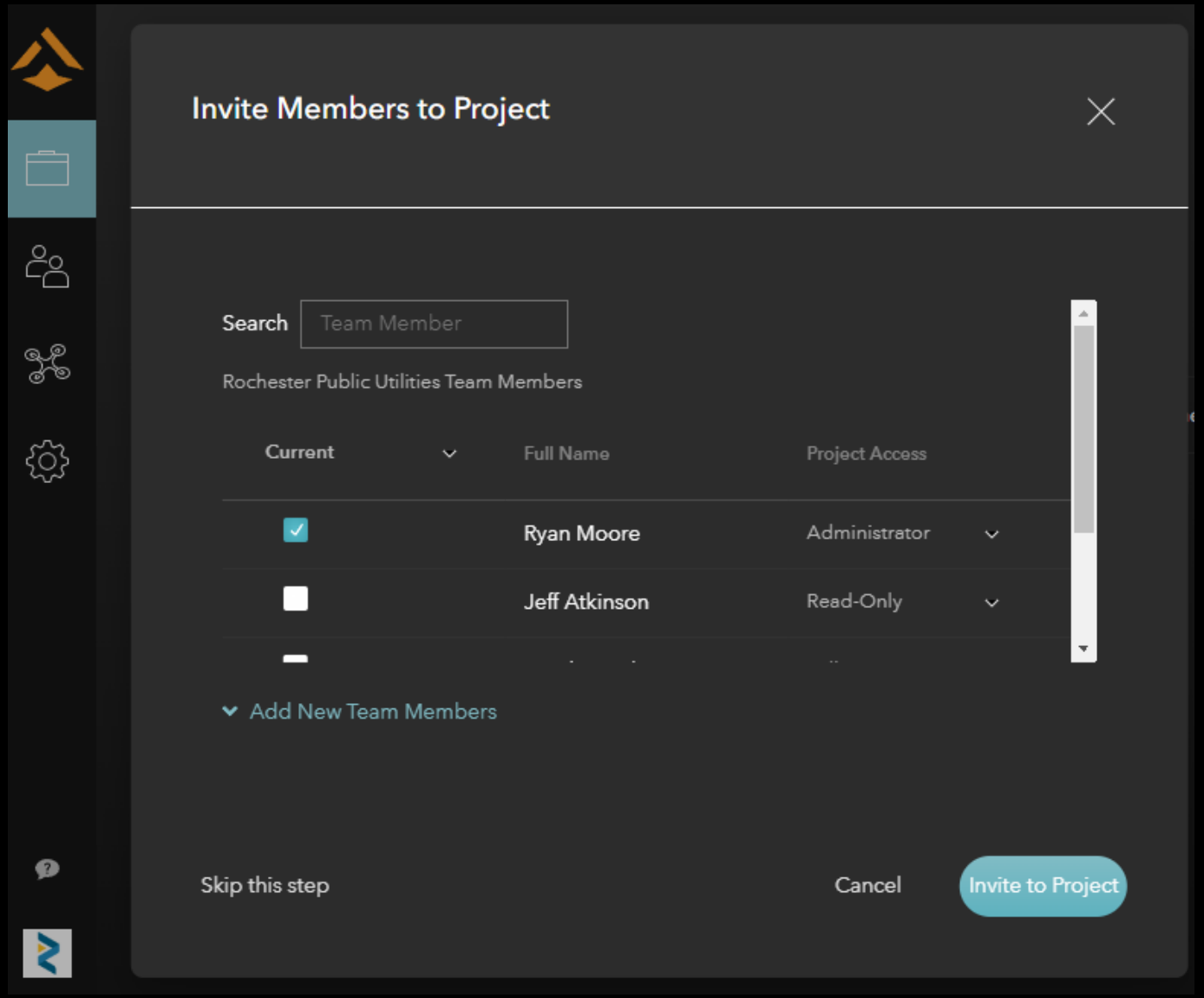
- Navigate the map or search for the area
- Click Next



GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a new project (Cont.)

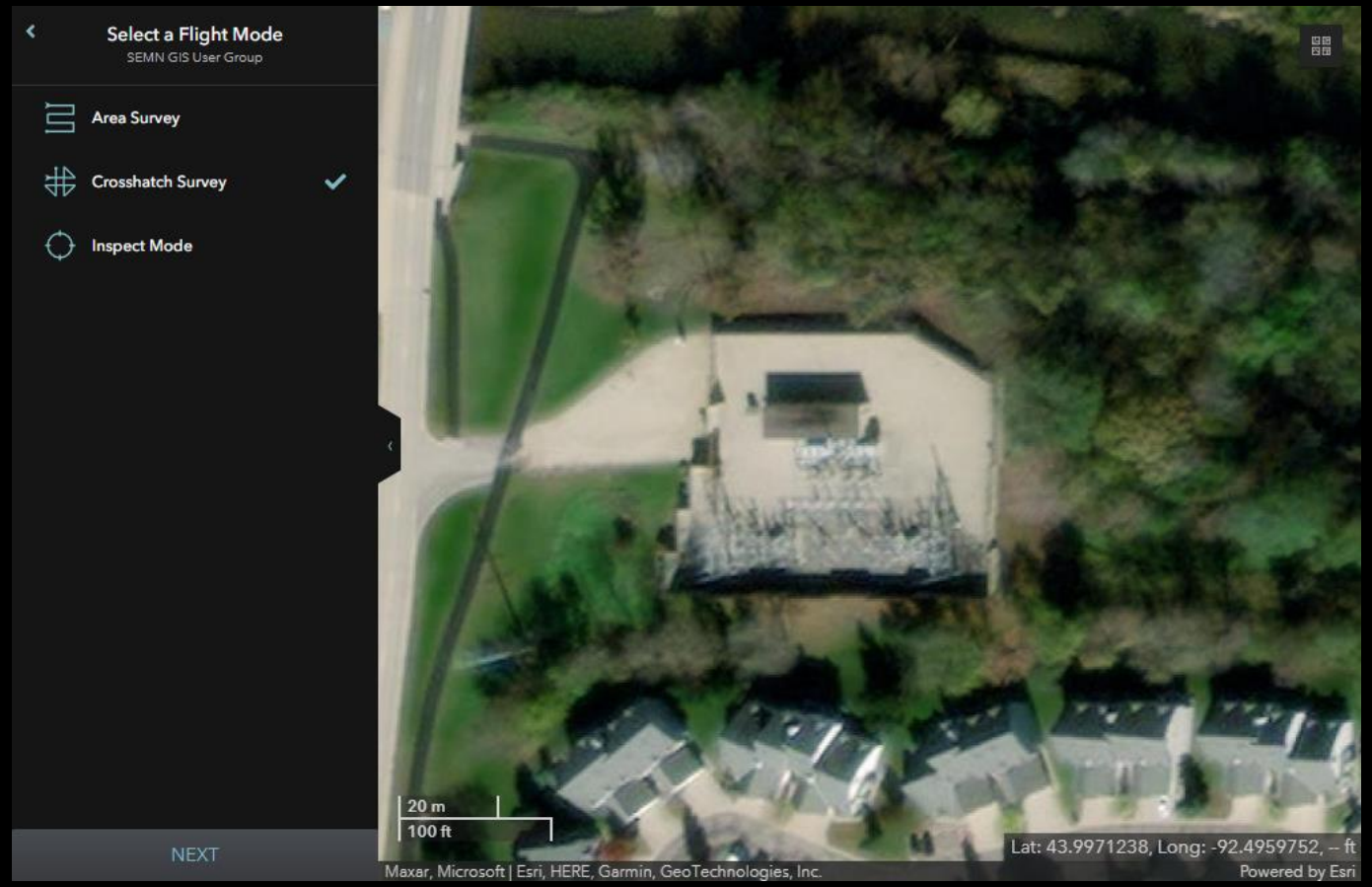
- Optional – Invite other members to this project
- Members can be invited later



GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a New Flight Plan

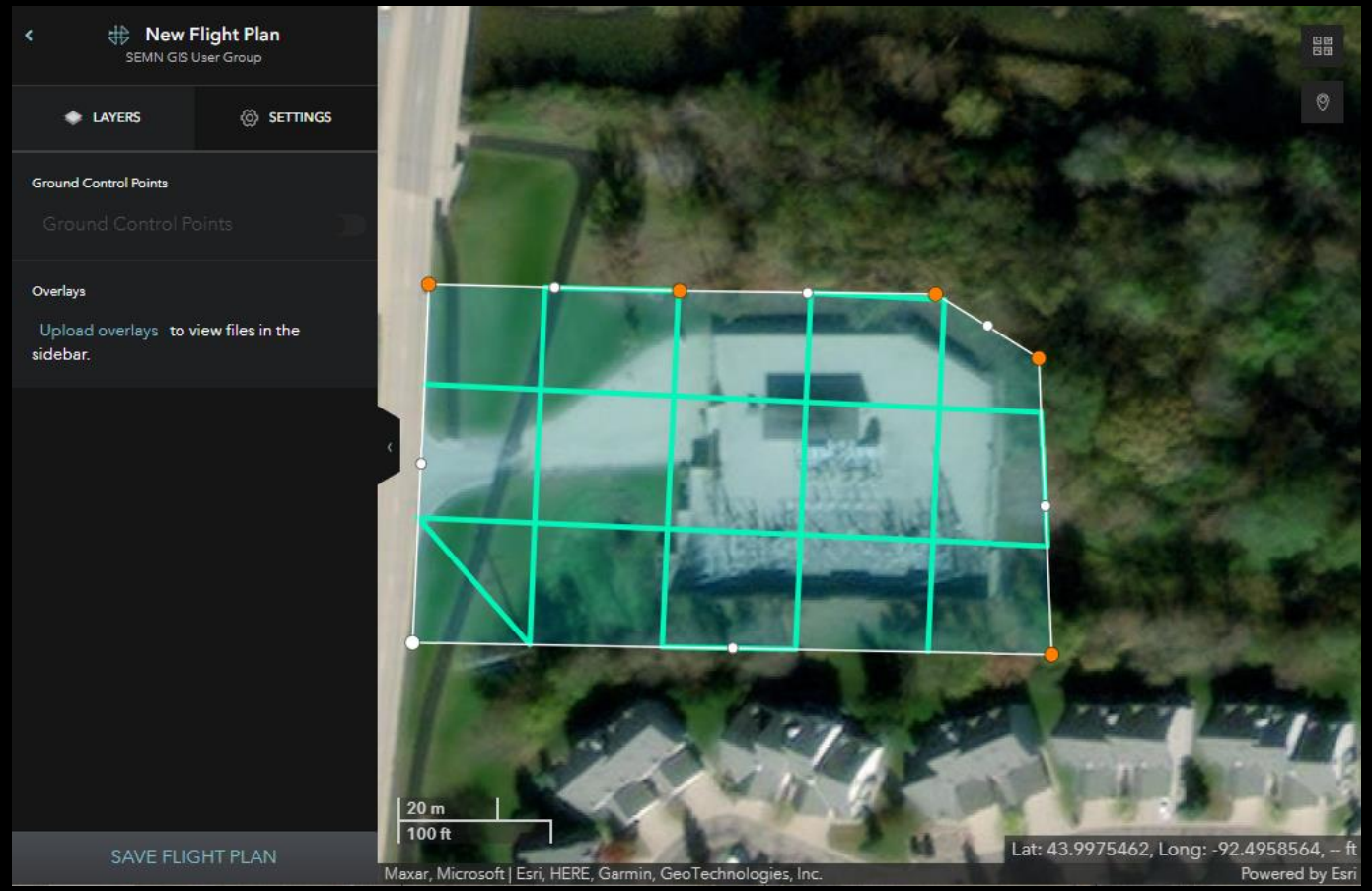
- Choose the type of flight
- Click Next



GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a New Flight Plan (cont.)

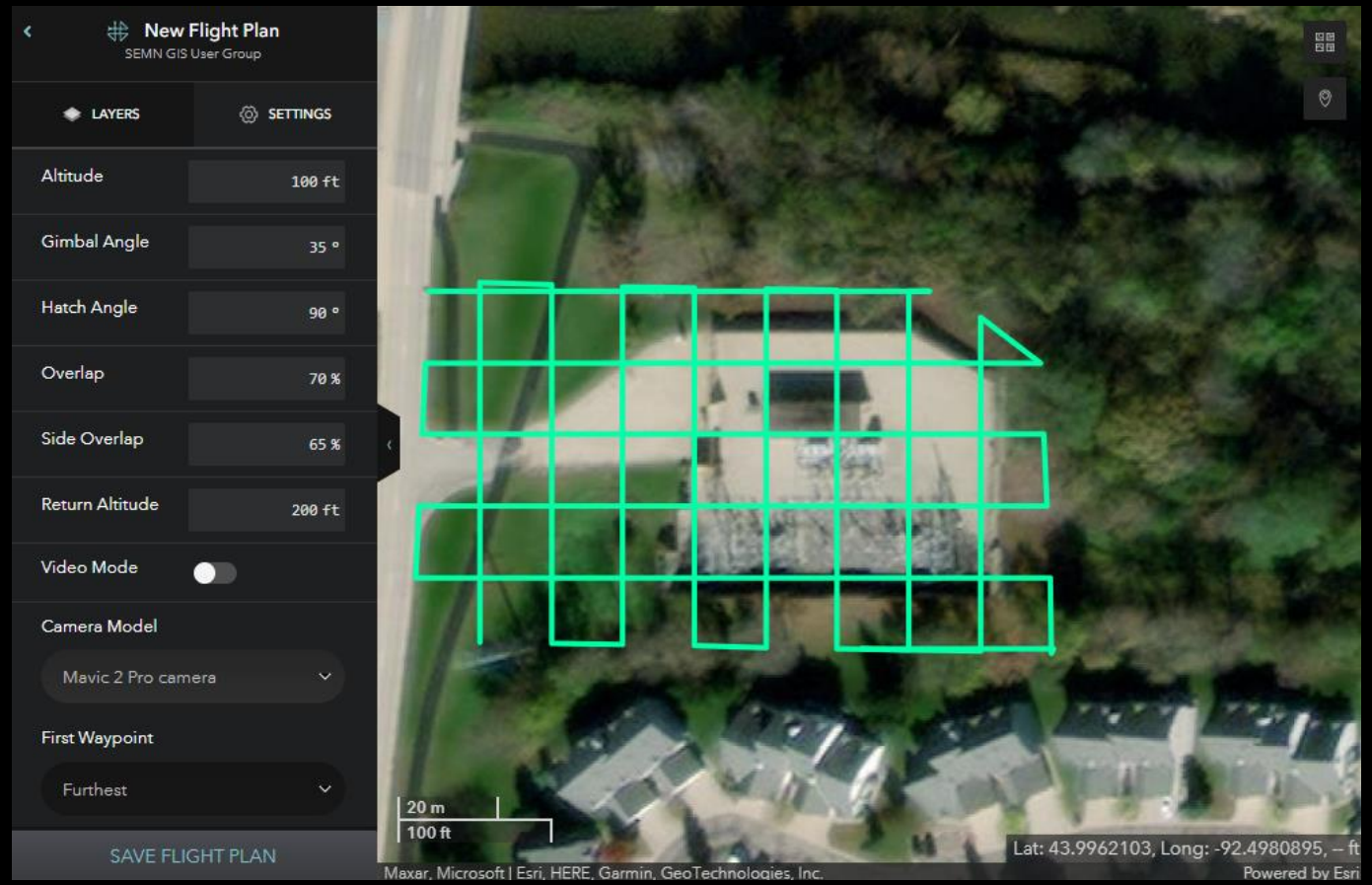
- Drag vertices to area you desire to fly
  - Additional vertices can be created by hovering over white points
  - Vertices can be deleted by right clicking over orange points
  - Flight lines are shown in cyan



GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a New Flight Plan (cont.)

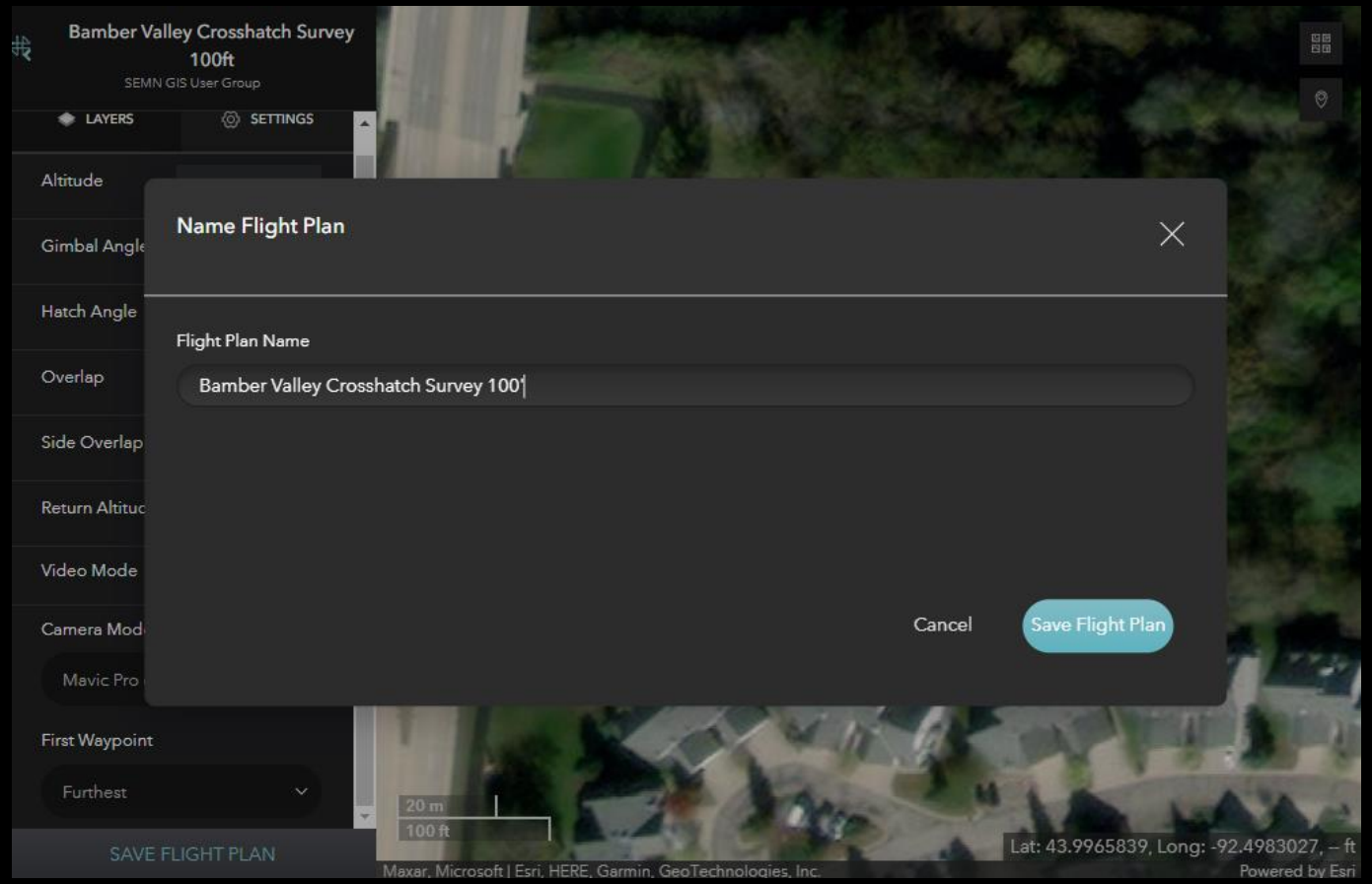
- Click the Settings Tab
  - Set desired parameters
  - Flight lines will change based on settings you specify
- Click Save Flight Plan



GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a New Flight Plan (cont.)

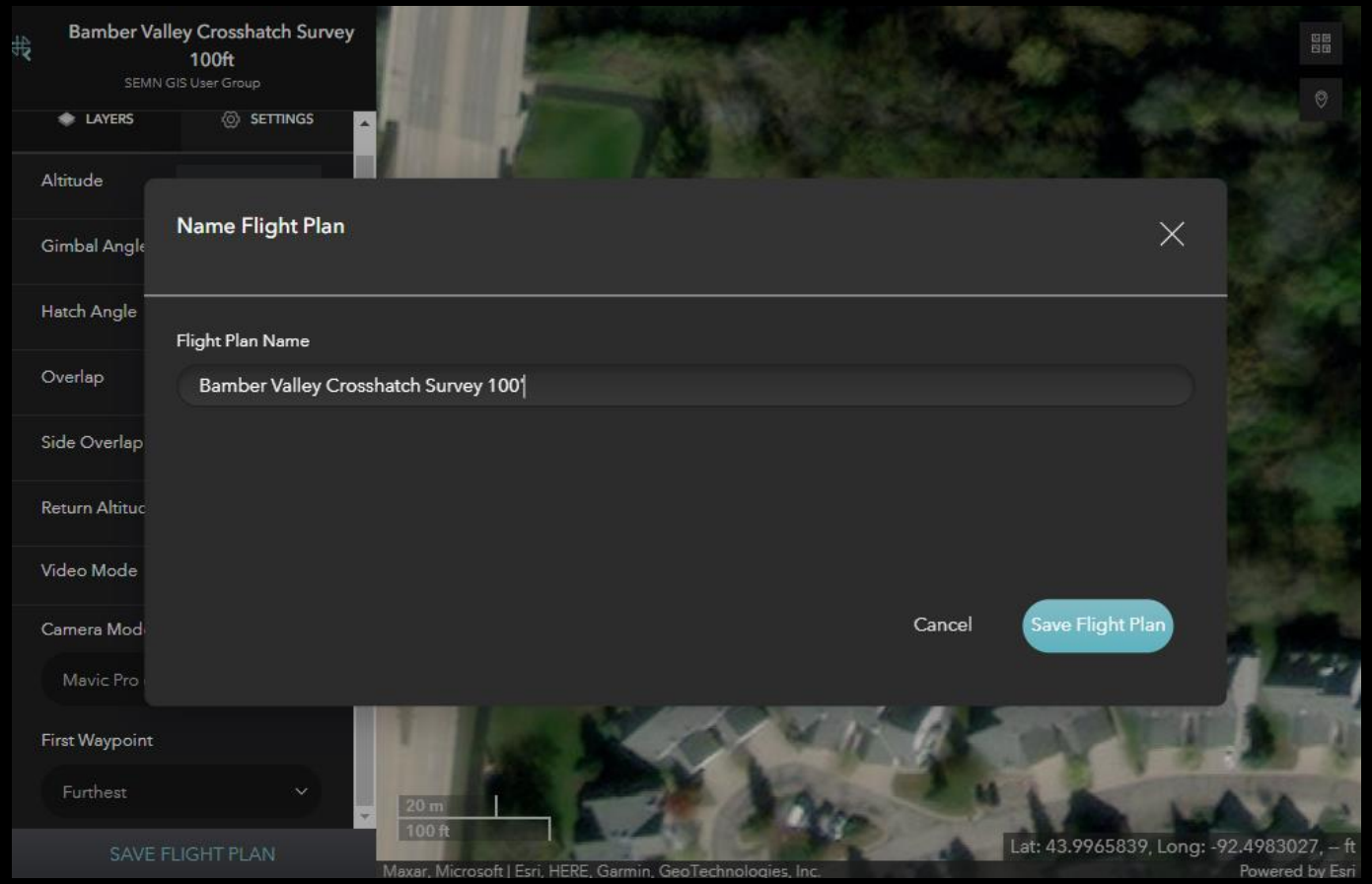
- Type in a descriptive name for the flight plan
- Click Save Flight Plan Button



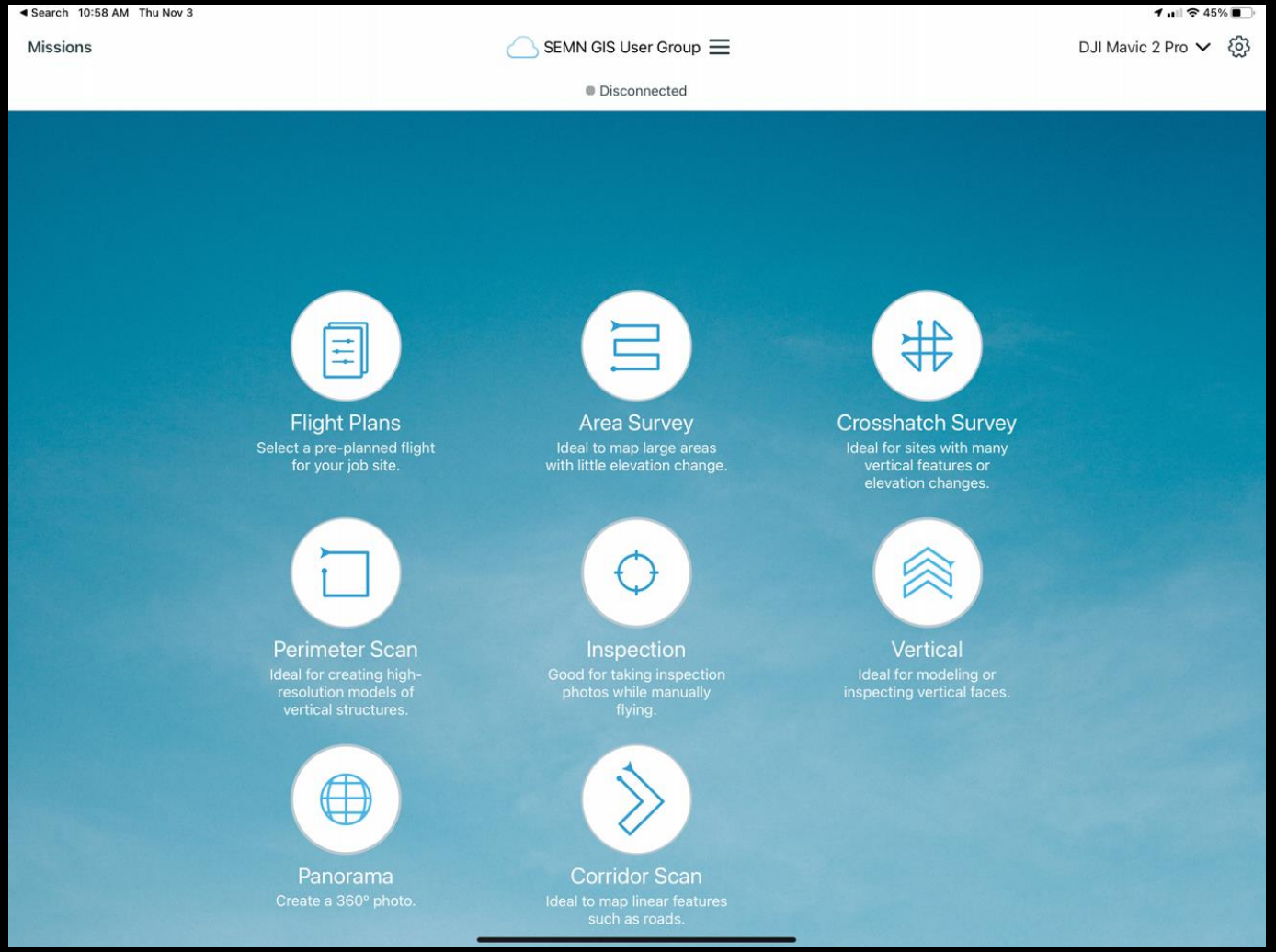
GET STARTED WITH SITE SCAN MANAGER (WEB)

Create a New Flight Plan (cont.)

- Type in a descriptive name for the flight plan
- Click Save Flight Plan Button

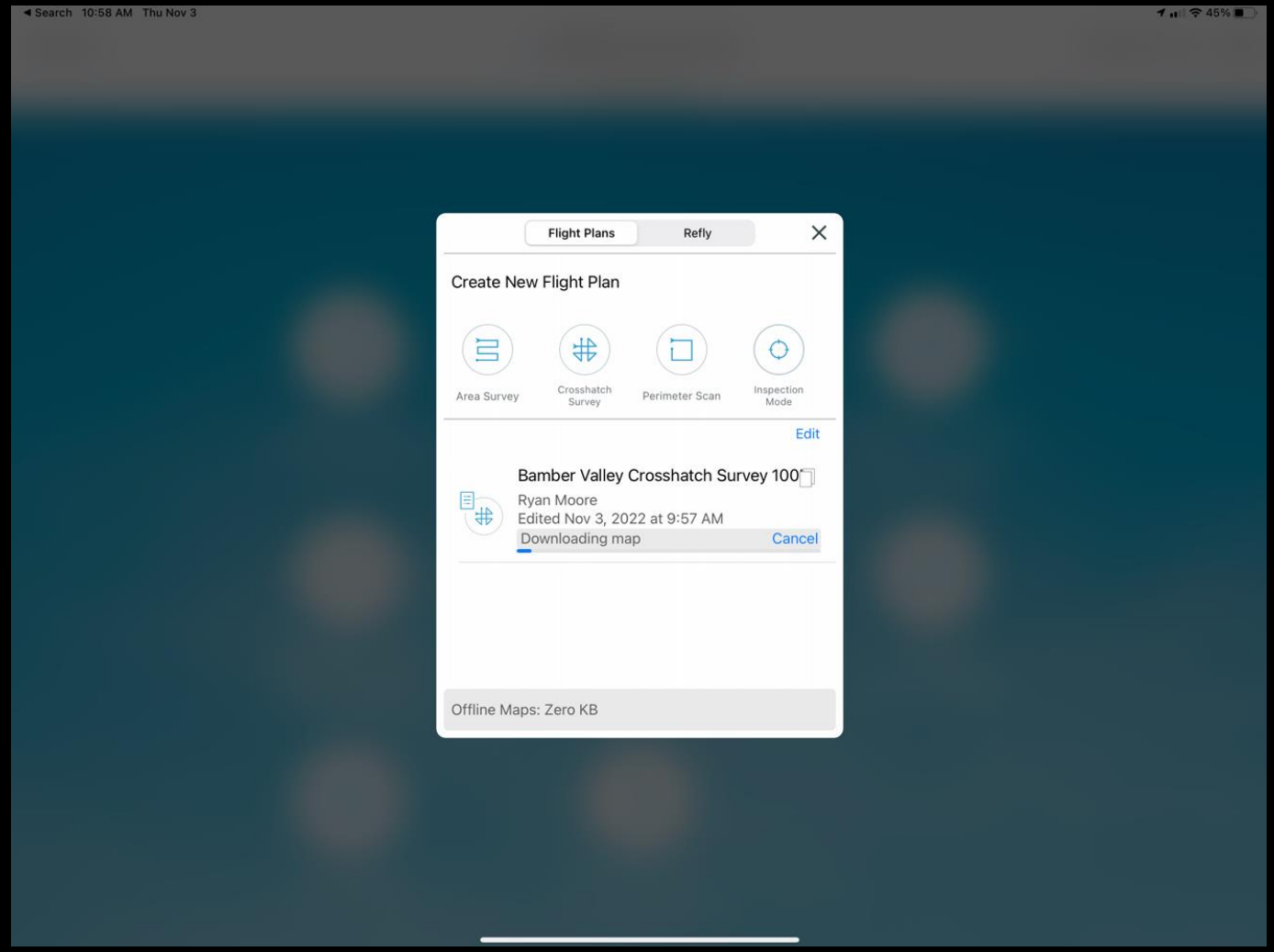


TIME TO FLY – SITE SCAN APP (IOS)



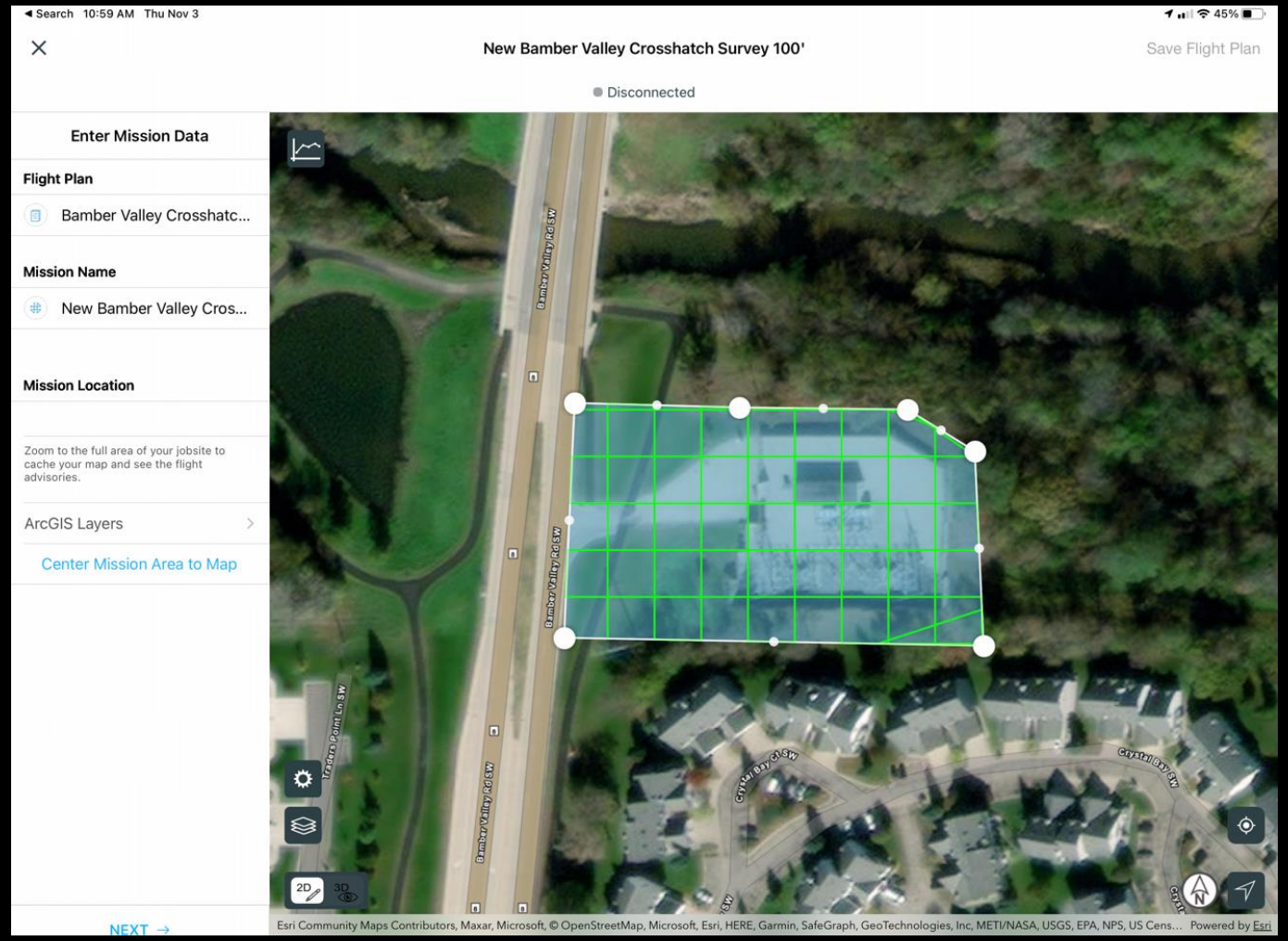
TIME TO FLY – SITE SCAN APP (IOS)

- Select the flight plan you wish to fly



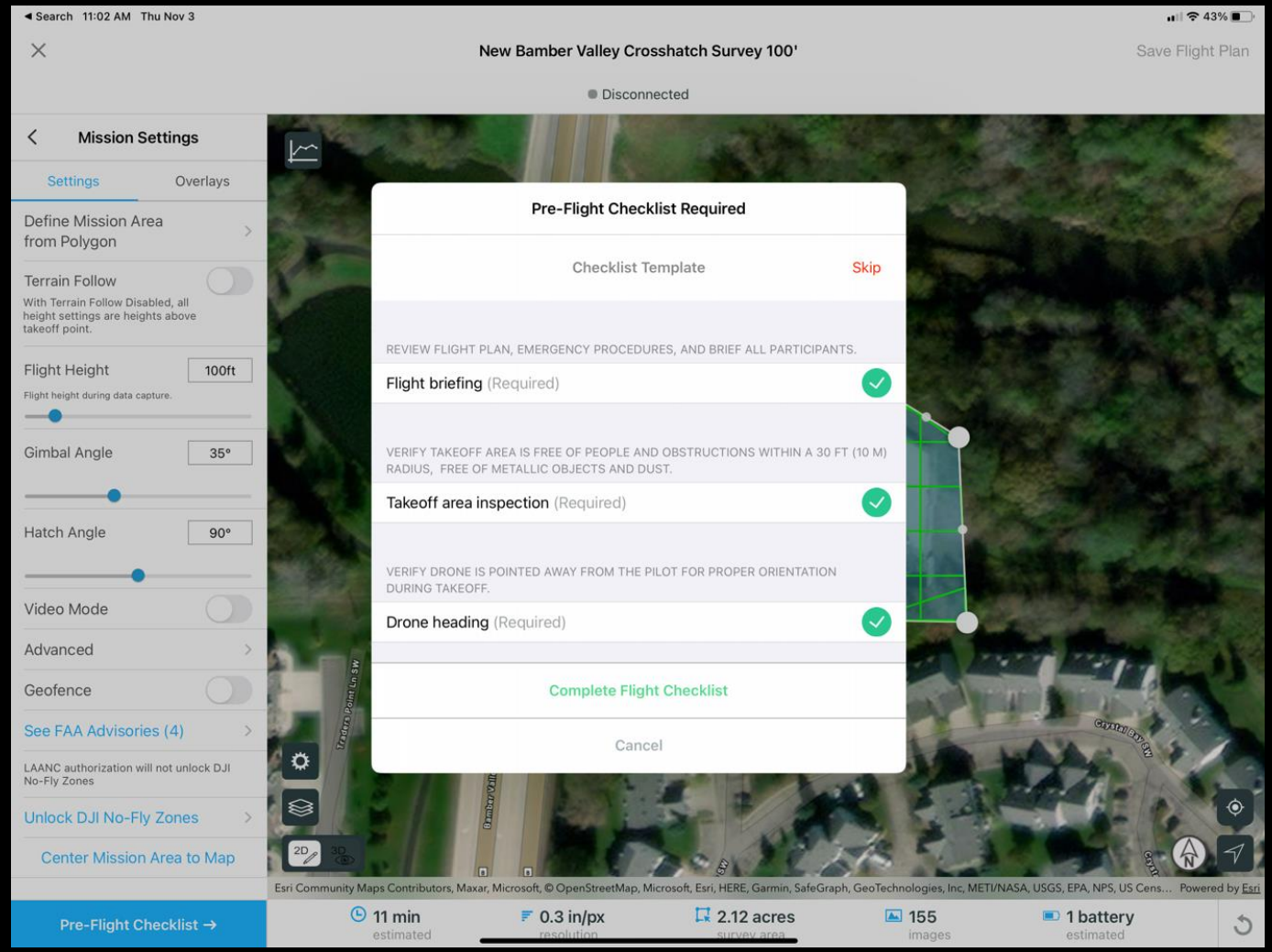
TIME TO FLY – SITE SCAN APP (IOS

- Rename the Mission Name if desired
- Click Next



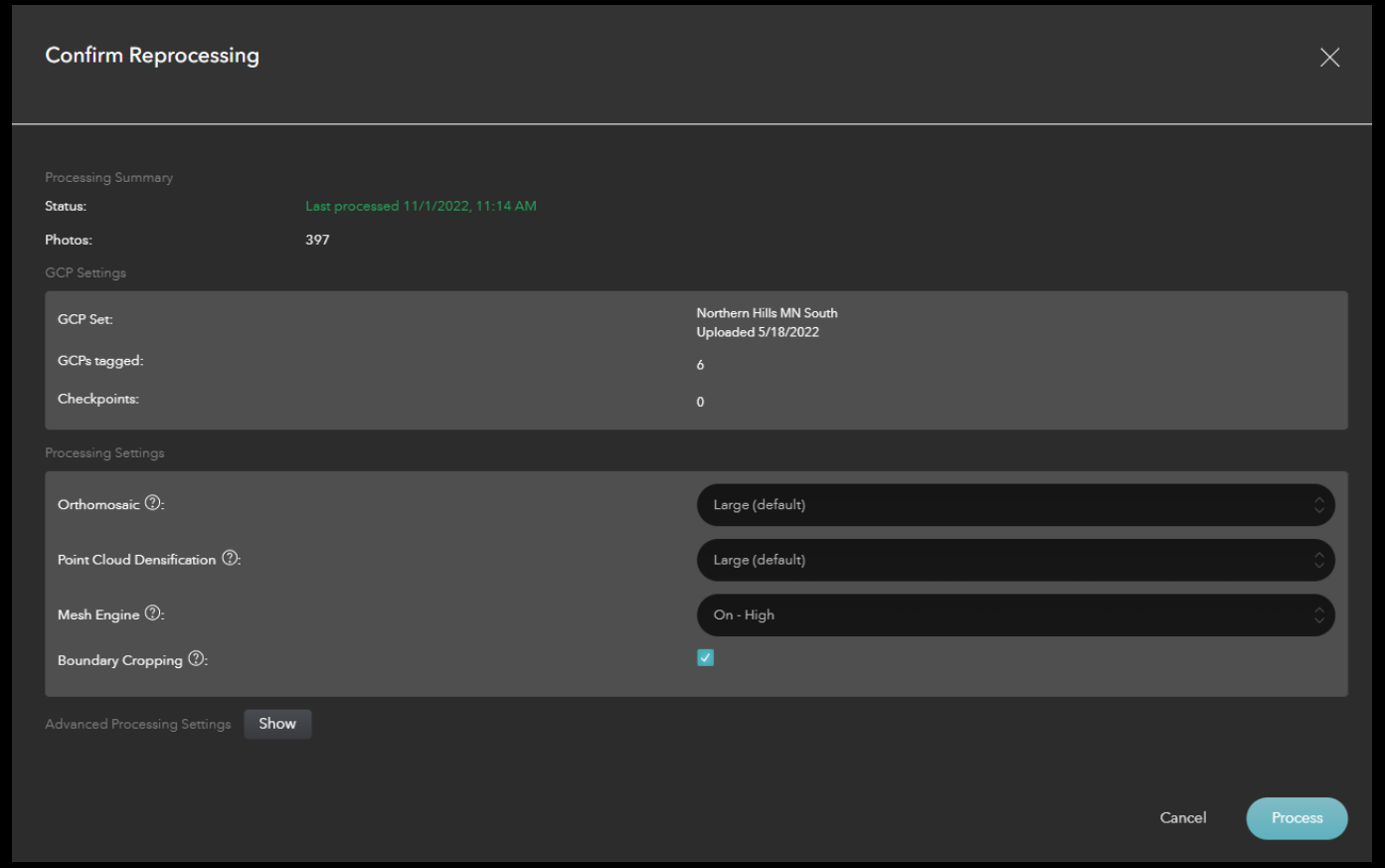
TIME TO FLY – SITE SCAN APP (IOS)

- Enter in the flight parameters
  - Estimated Time, Resolution, Survey Area and # of images, and # of Batteries expected are shown on the bottom based on parameters entered.
- Complete the Pre-Flight Checklist
- Click Fly
  - Drone will autonomously fly the mission, no user input is needed unless an unexpected hazard approaches the area



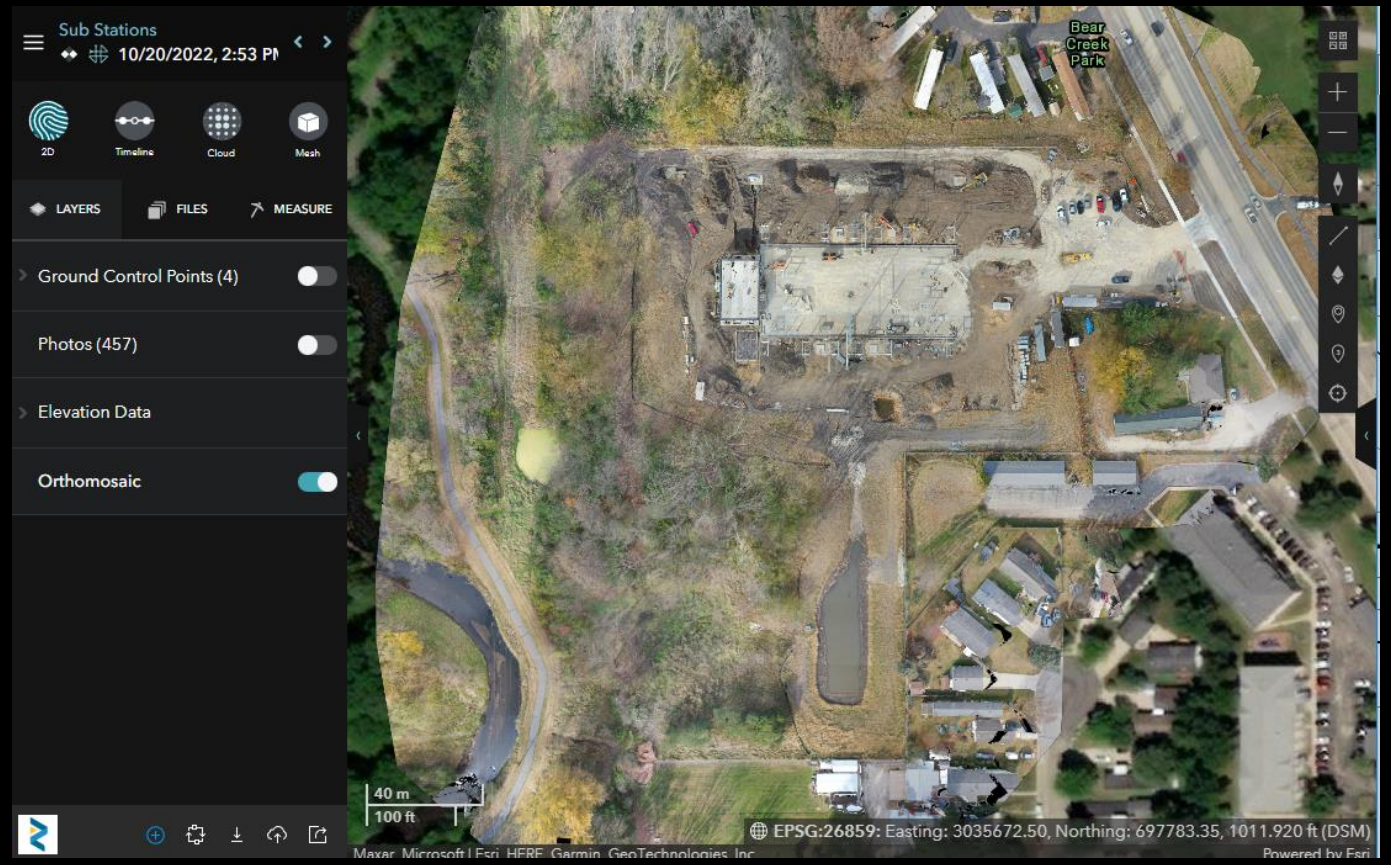
PROCESS THE MISSION

- Upload images to Site Scan Cloud
- Chose the processing options
- Receive an e-mail when processing has finished



VIEWING THE RESULTS 2D VIEW

- Navigate to your Project
- Select the Mission of interest
- 2D will show a orthomosaic image of the images collected.

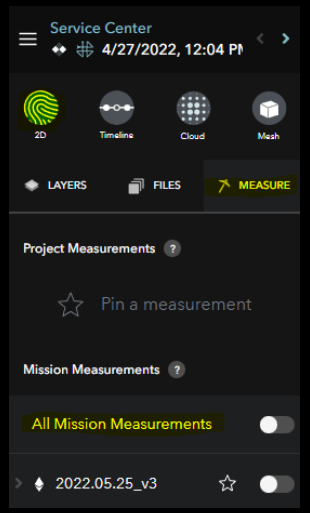


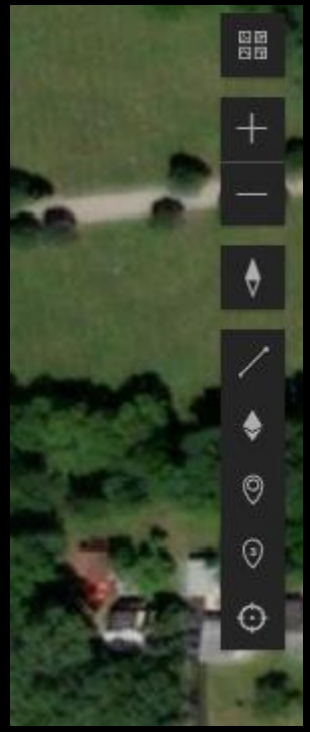
VIEWING THE RESULTS
2D VIEW - LAYERS

- Ground Control (optional)
- Photos
- Elevation Data
  - Contours
  - Elevation Model
  - Cut Fill
  - Hill shade
- Orthomosaic

VIEWING THE RESULTS
2D VIEW - TOOLS

- Output for all tools shows up in the left pane as a Mission Measurement





Change Basemap

Zoom In

Zoom Out

Reset Compass Orientation

Line Tool (measures distance)

Volume Tool

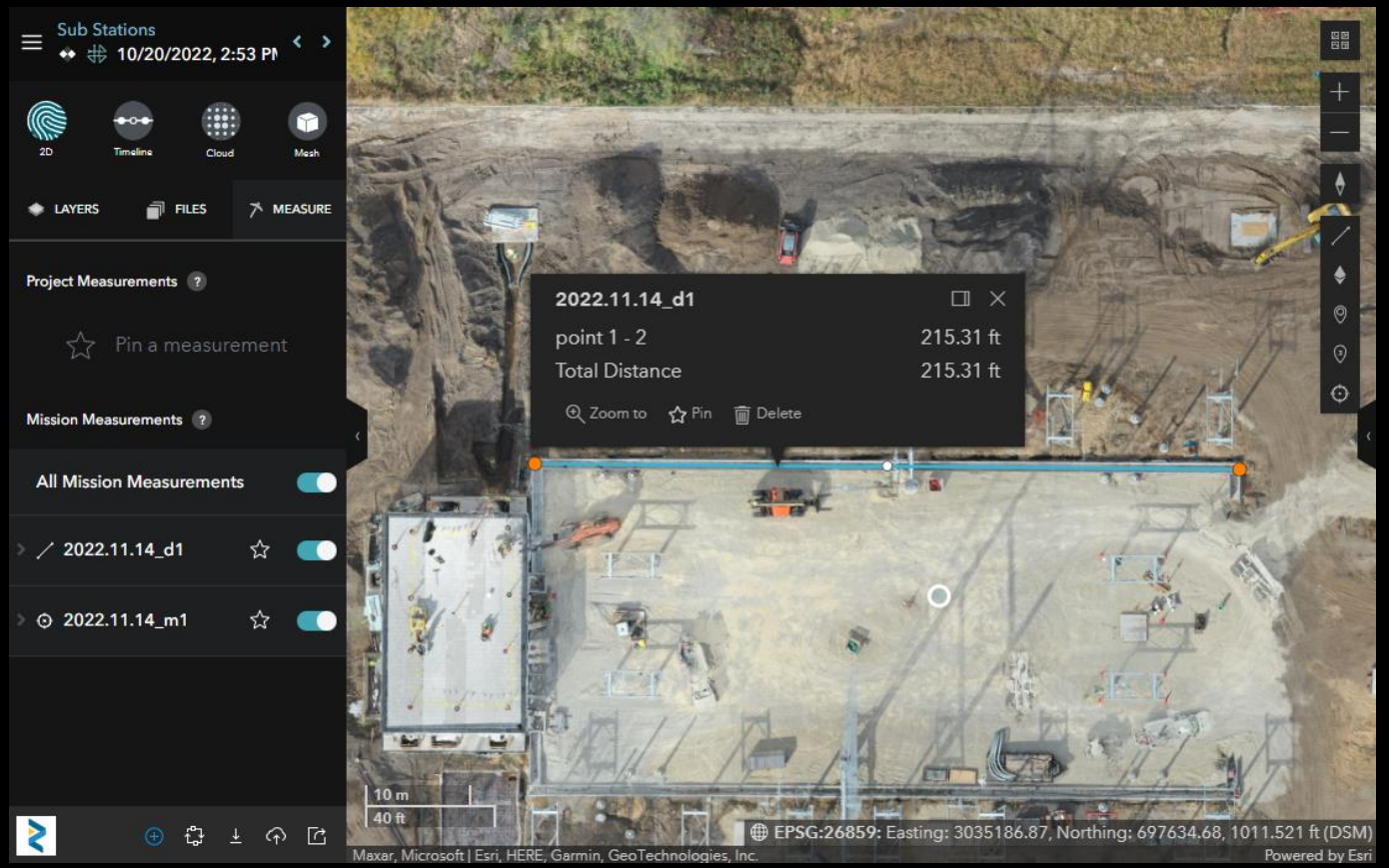
Marker Tool

Counter Tool

Photo Inspection Tool

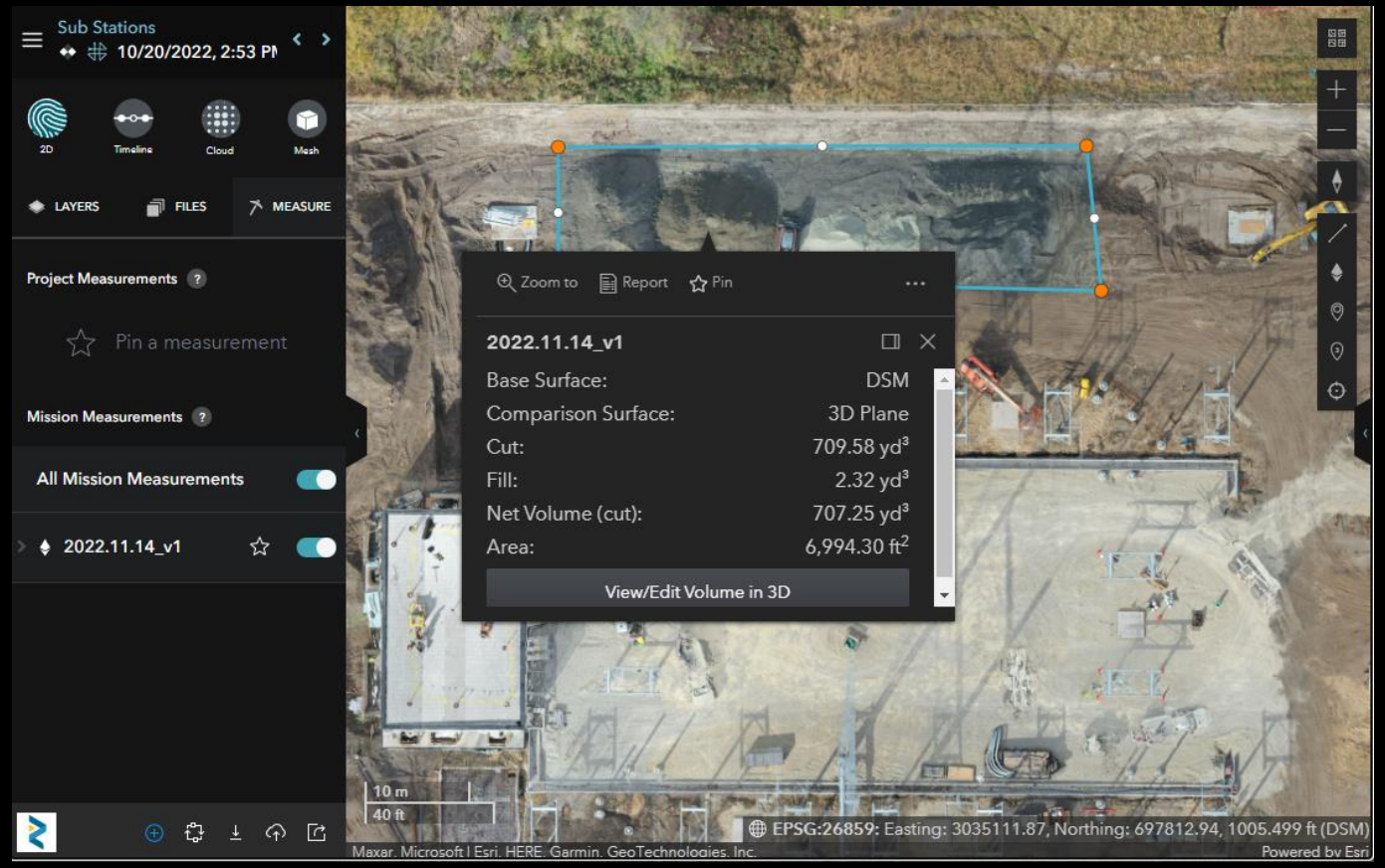
VIEWING THE RESULTS 2D VIEW - TOOLS

- Line Tool – Single Click to Start, Double Click to end



VIEWING THE RESULTS 2D VIEW - TOOLS

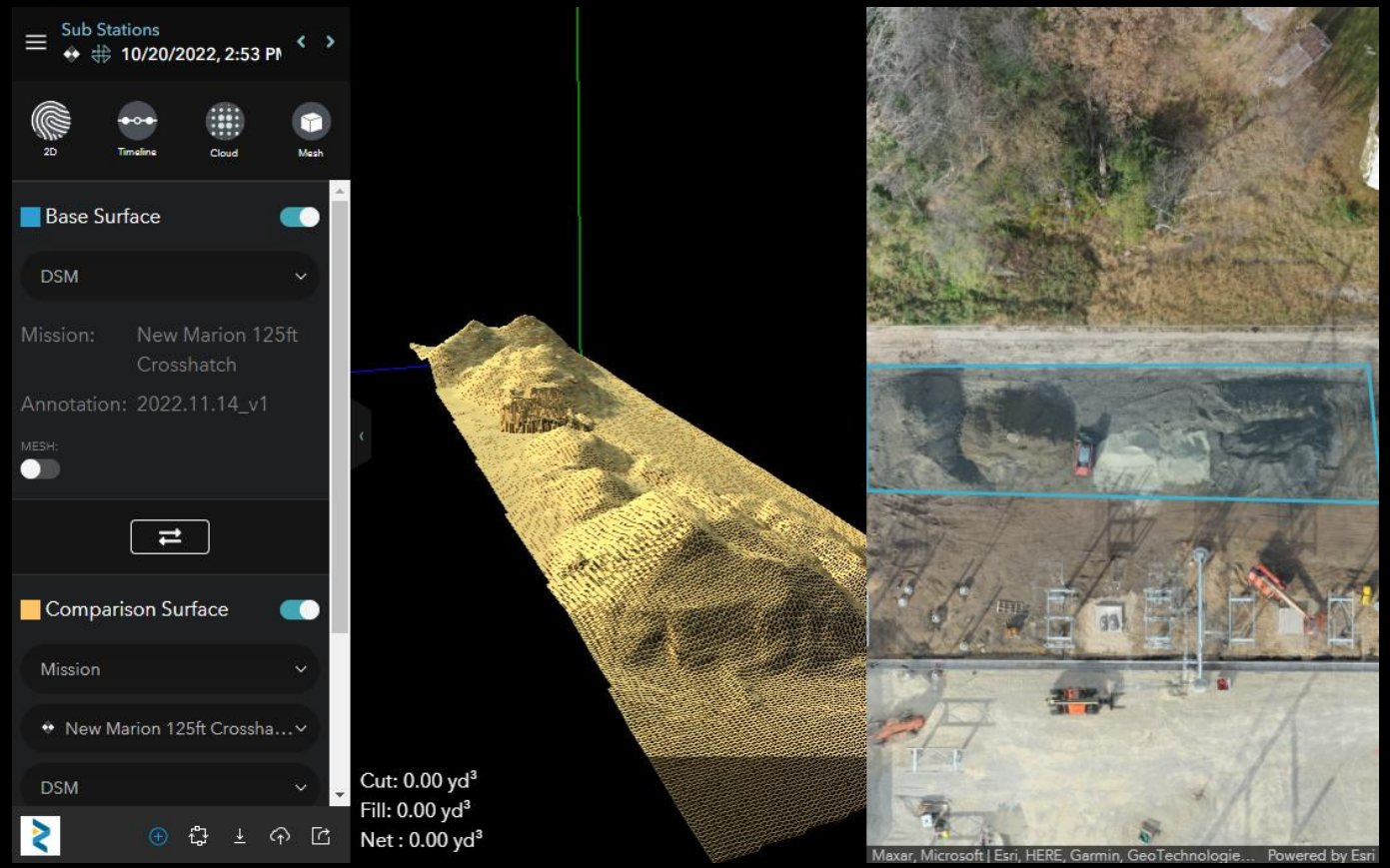
- Volume Tool – Single Click to Start, Double Click to end
- Single Click on the polygon after drawn
- Optionally open the 3D view by clicking View/Edit Volume in 3D option



VIEWING THE RESULTS 2D VIEW - TOOLS

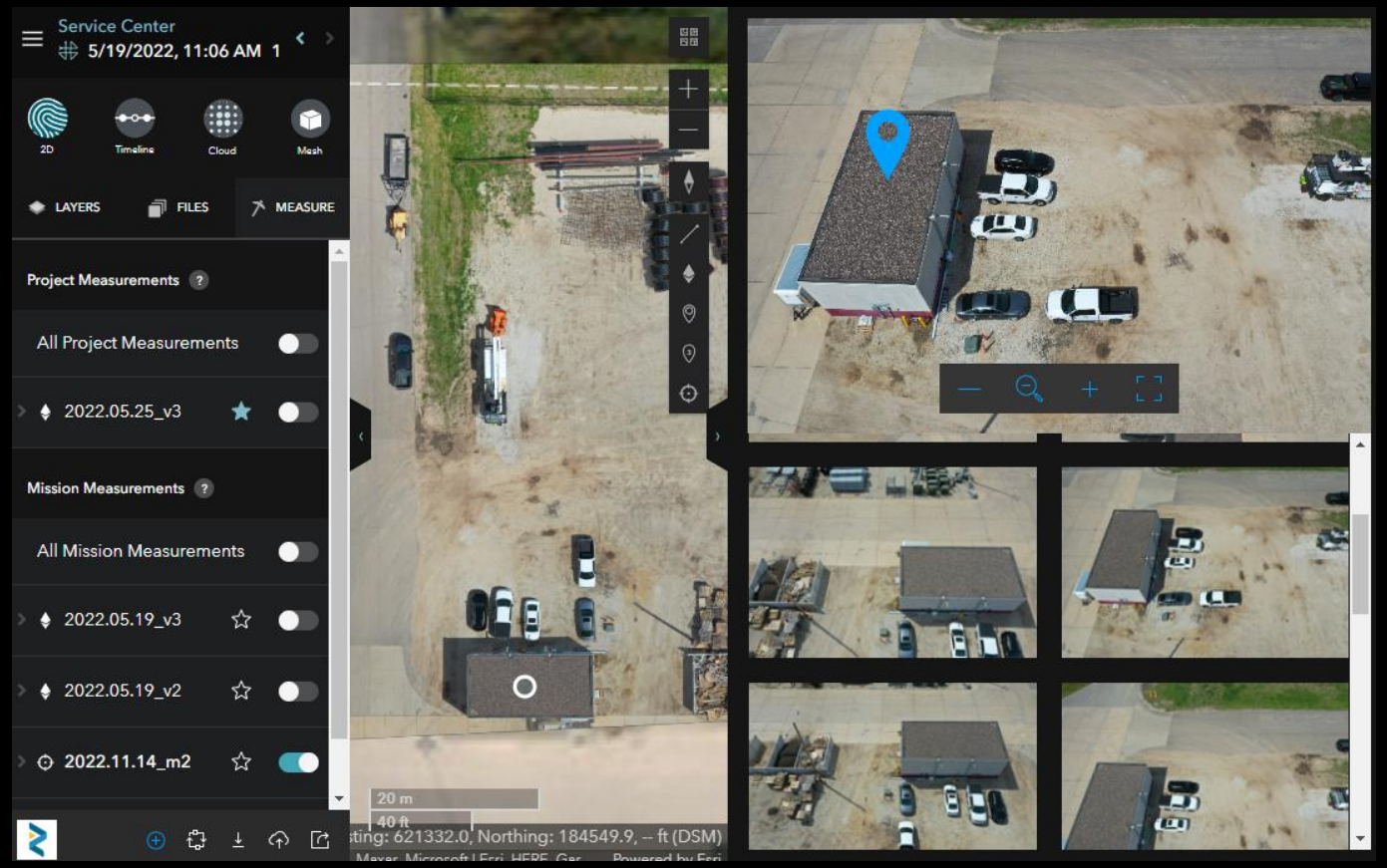
- Volume Tool - 3D model navigation controls
  - Click and hold left mouse button to rotate
  - Click and hold right mouse button to pan
  - Roll mouse wheel to zoom in/out

- Comparison Surface can be changed by Clicking the dropdown arrow underneath the Comparison Surface visibility slider



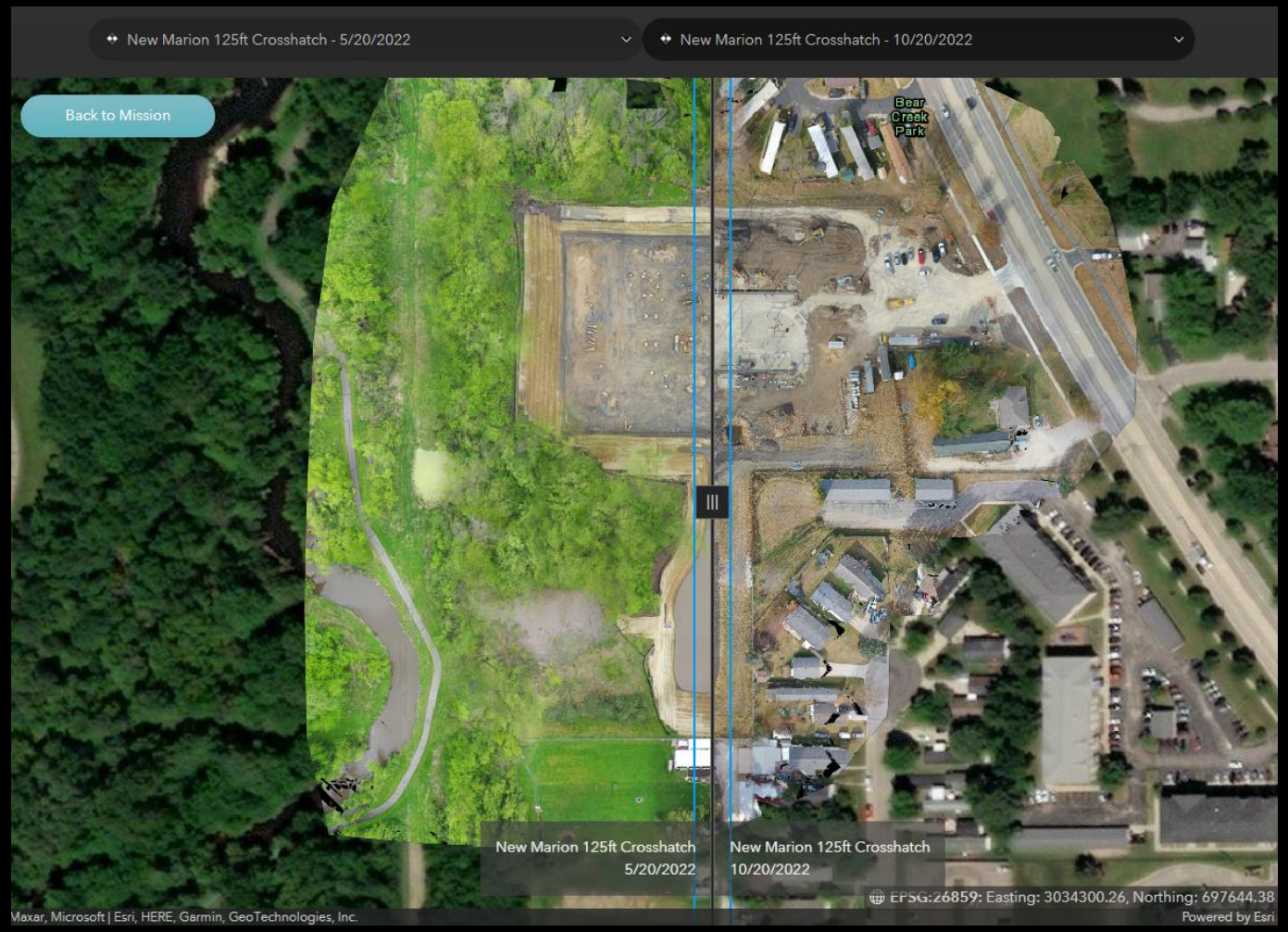
VIEWING THE RESULTS 2D VIEW - TOOLS

- Photo Inspector Tool
  - Single click anywhere within the mission extent.
  - Corresponding photos nearby that point are displayed.



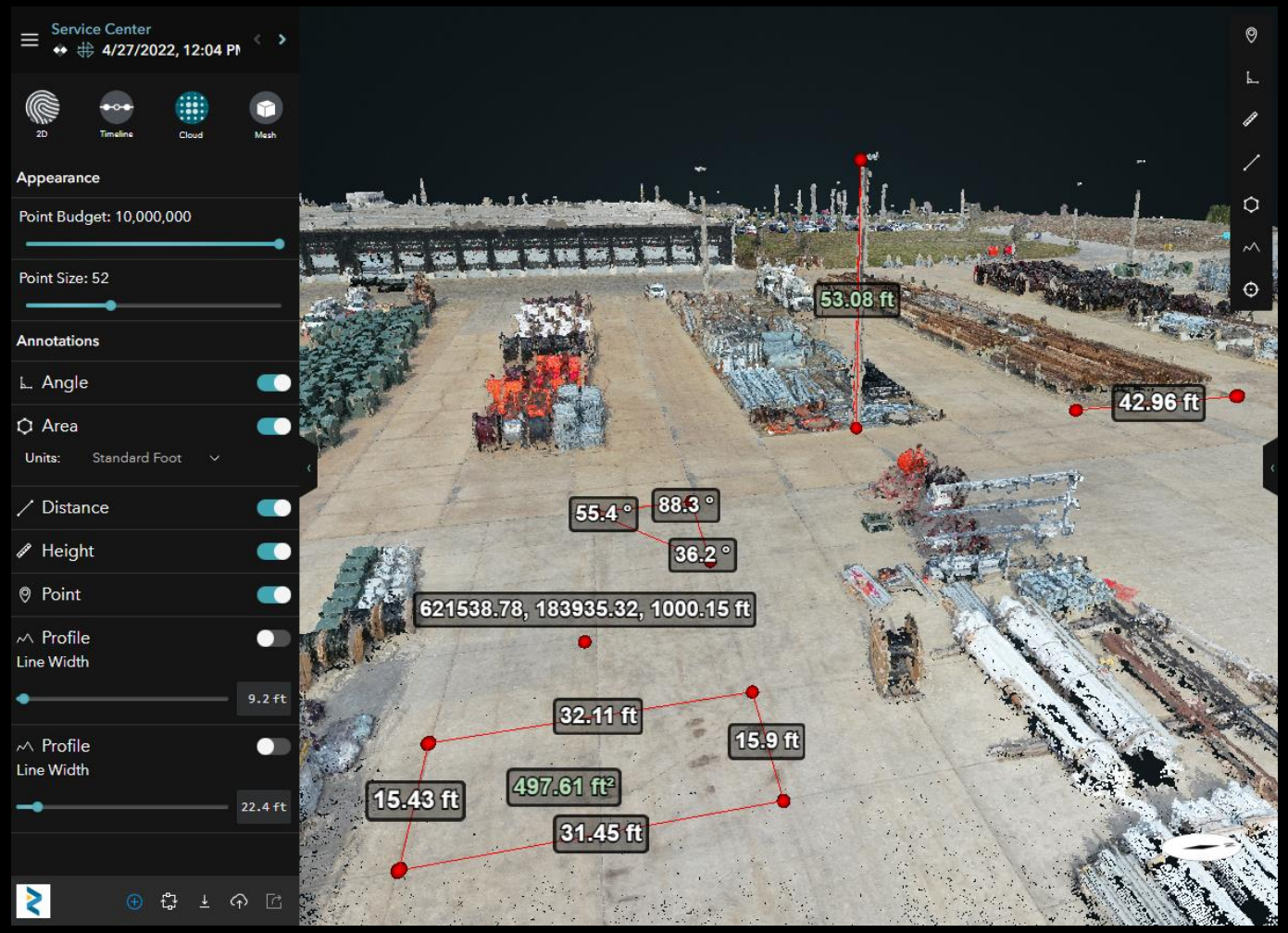
VIEWING THE RESULTS TIMELINE VIEW

- Used for comparing missions at 2 different times.
- Great for showing site development changes



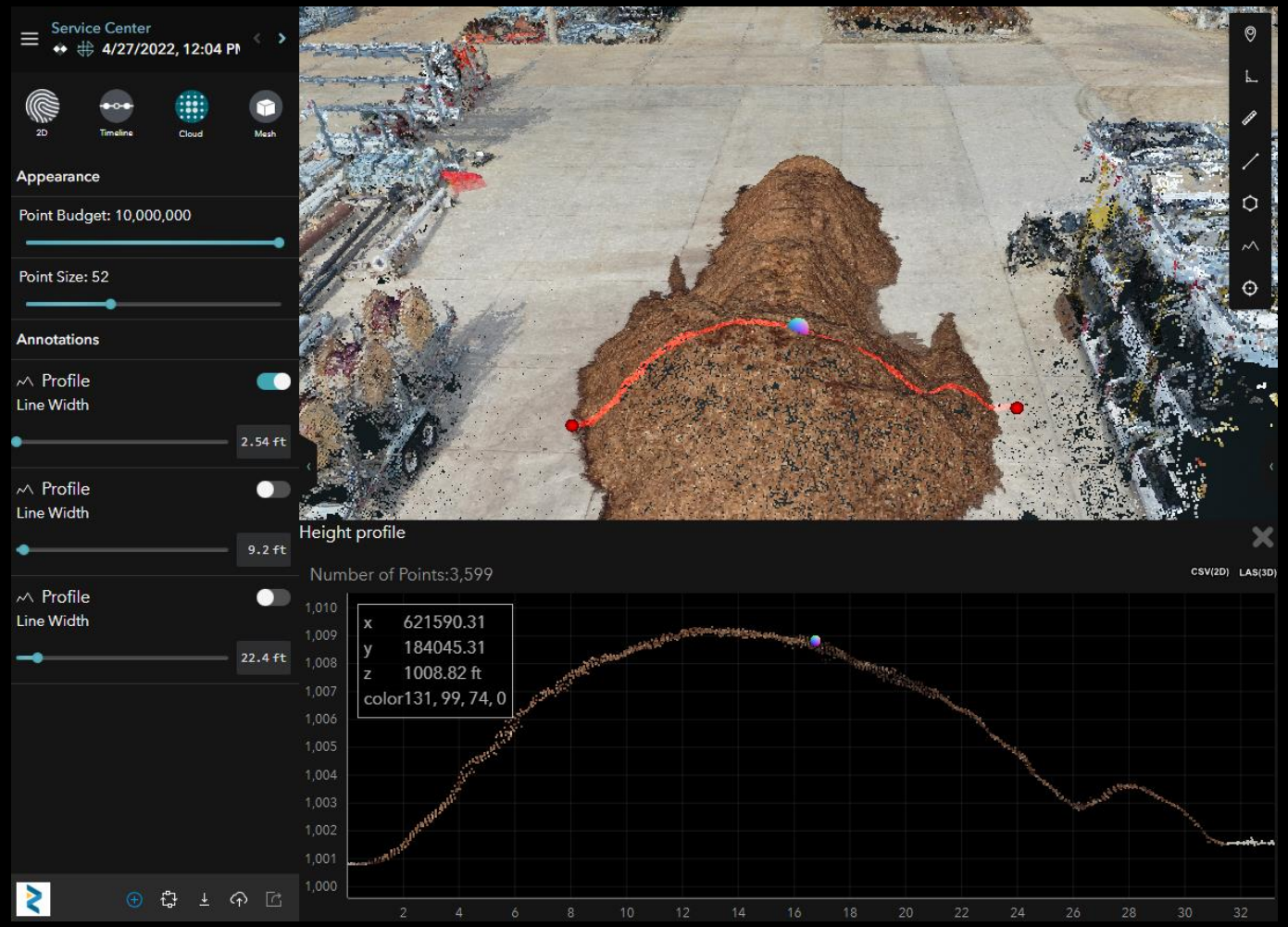
VIEWING THE RESULTS CLOUD VIEW

- 3D Point cloud that can be used perform a number of measurements such as:
  - Angles
  - Heights
  - Distance
  - Areas
  - Elevation Profiles



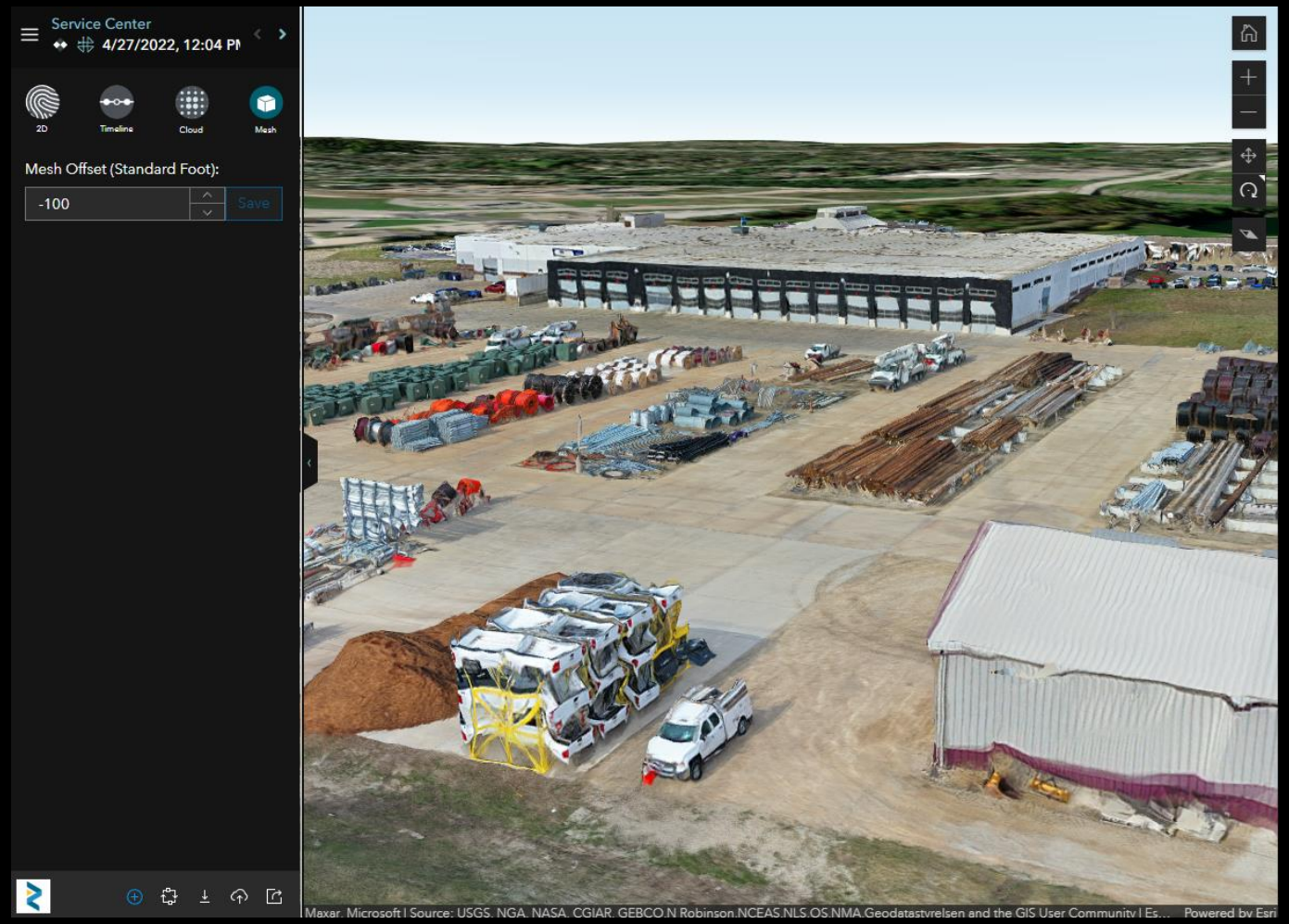
VIEWING THE RESULTS CLOUD VIEW

- Elevation Profile Tool



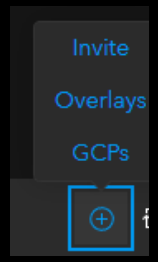
VIEWING THE RESULTS 3D MESH VIEW

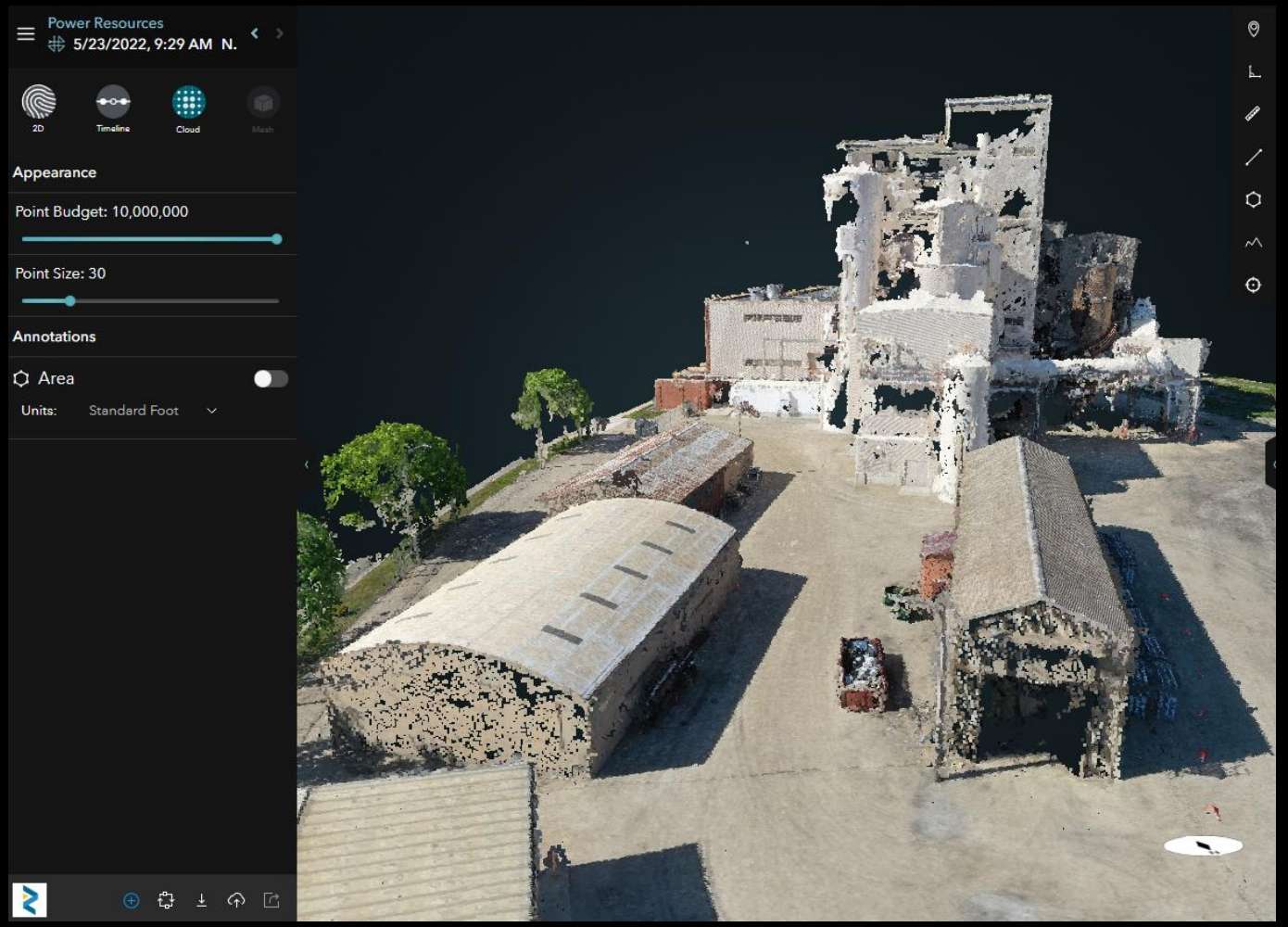
- Explore in 3D with solid surfaces draped over point cloud



EXPORT AND OTHER OPTIONS

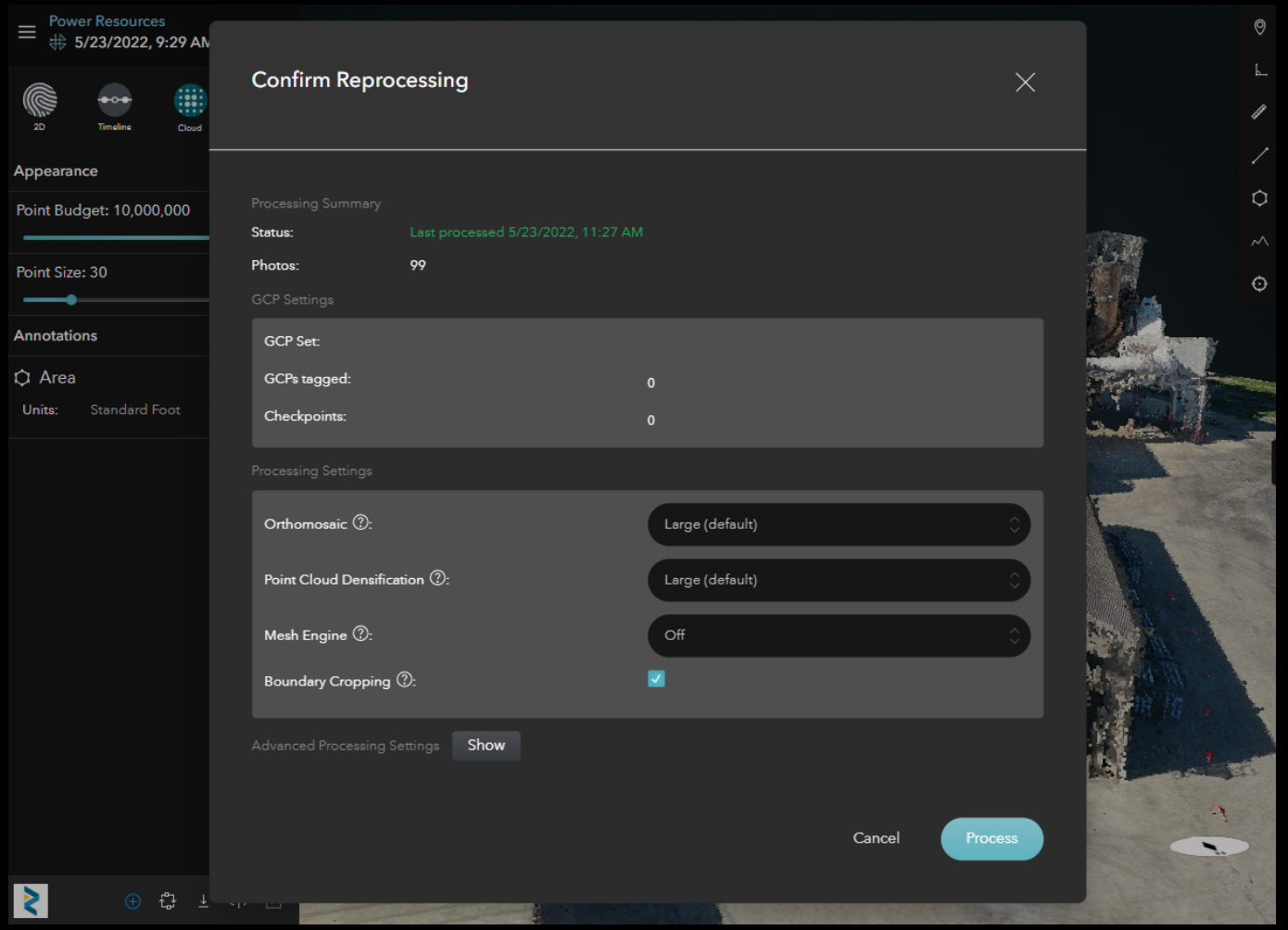
- Add Button
  - Invite users to your project
  - Add overlay layers
  - Add Ground Control Points





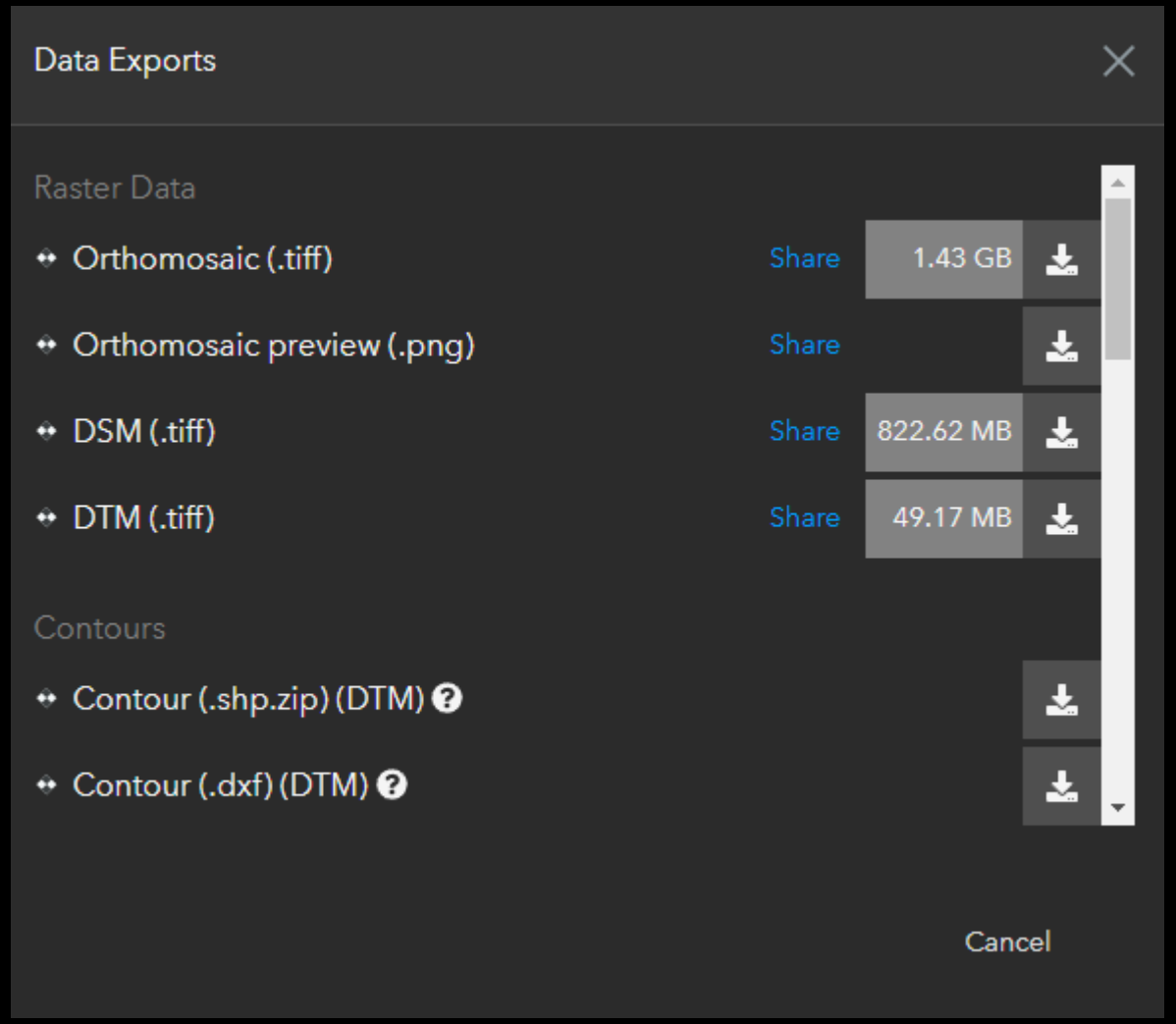
EXPORT AND OTHER OPTIONS

- Process 



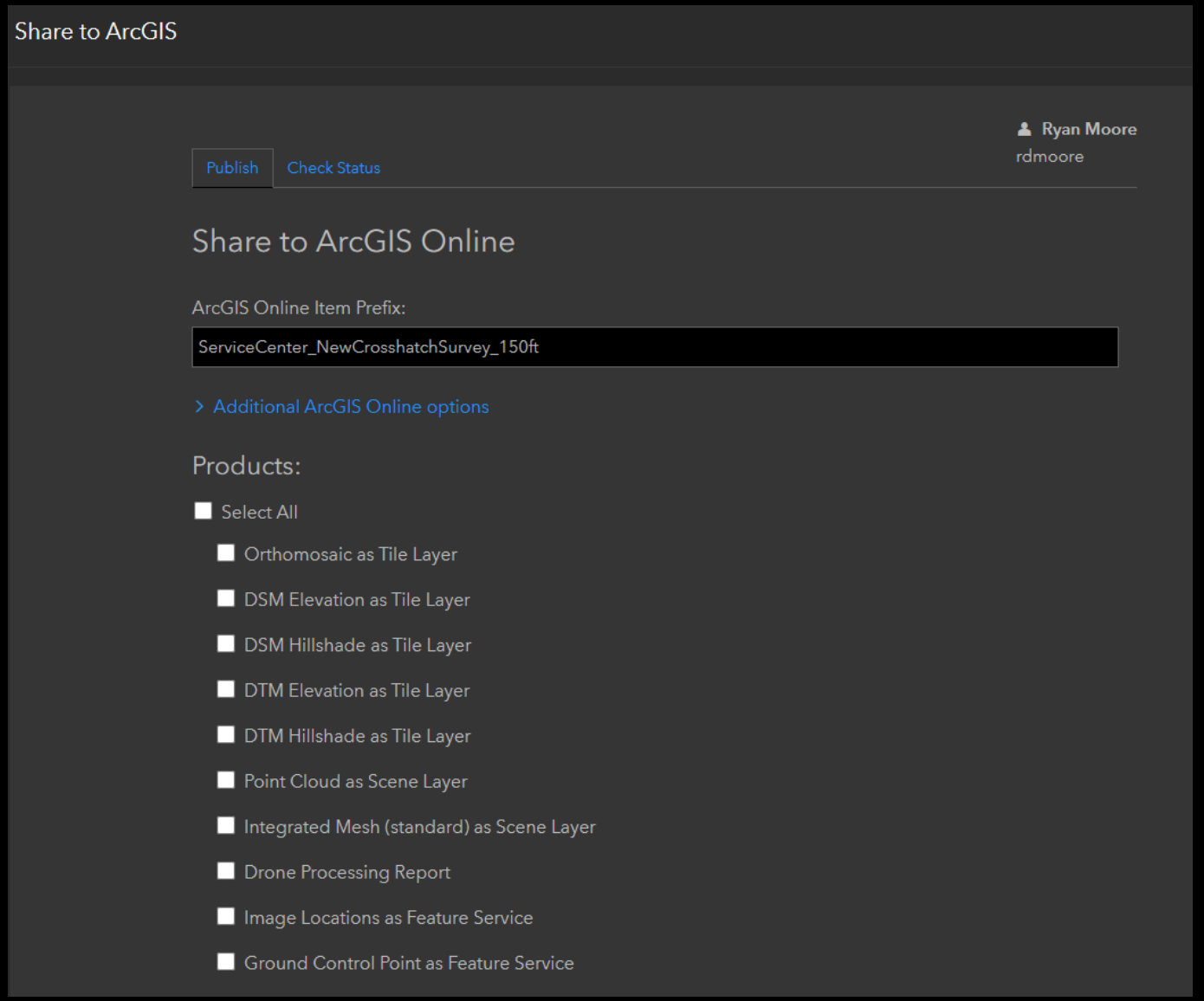
EXPORT AND OTHER OPTIONS

- Export 



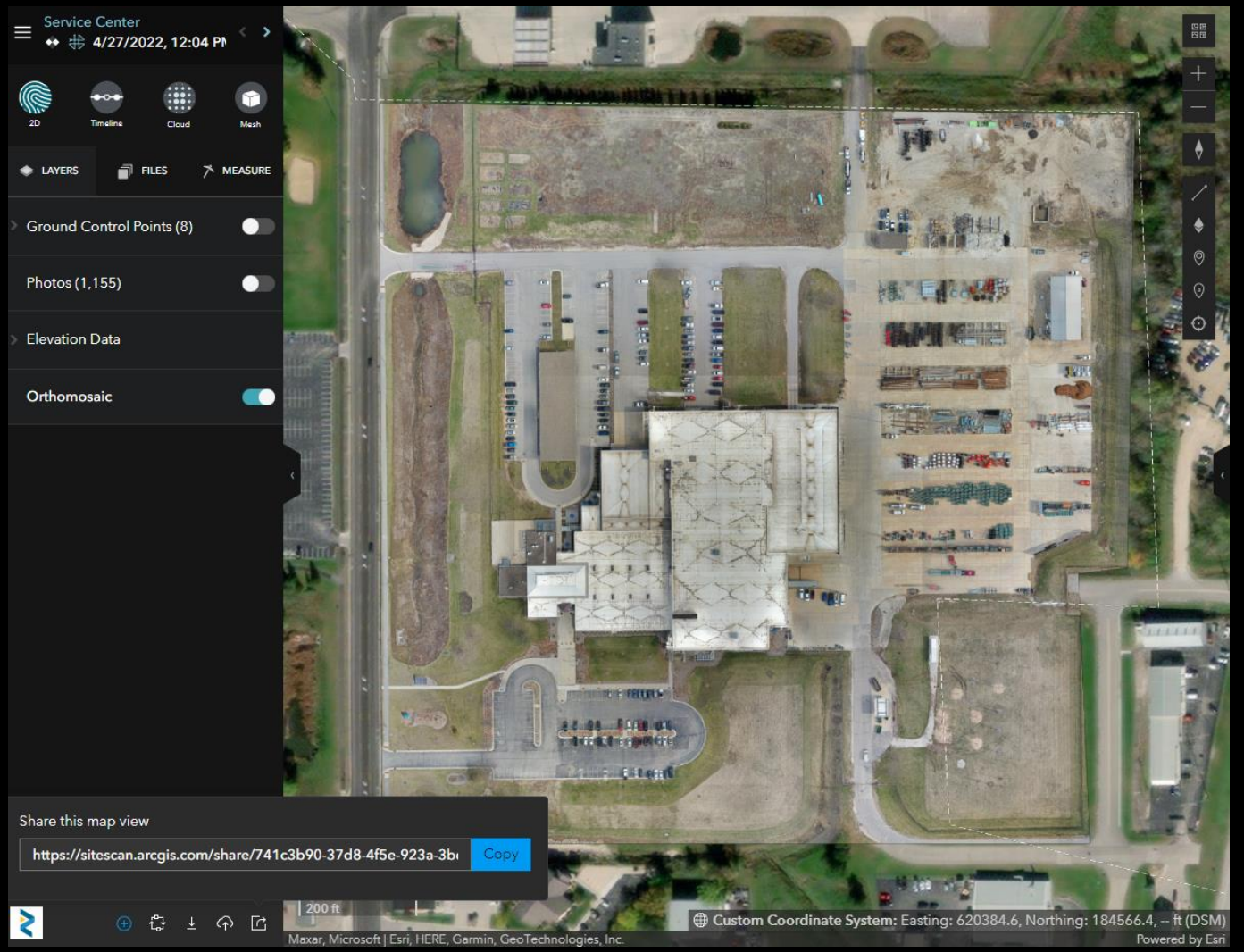
EXPORT AND OTHER OPTIONS

- Share to ArcGIS 



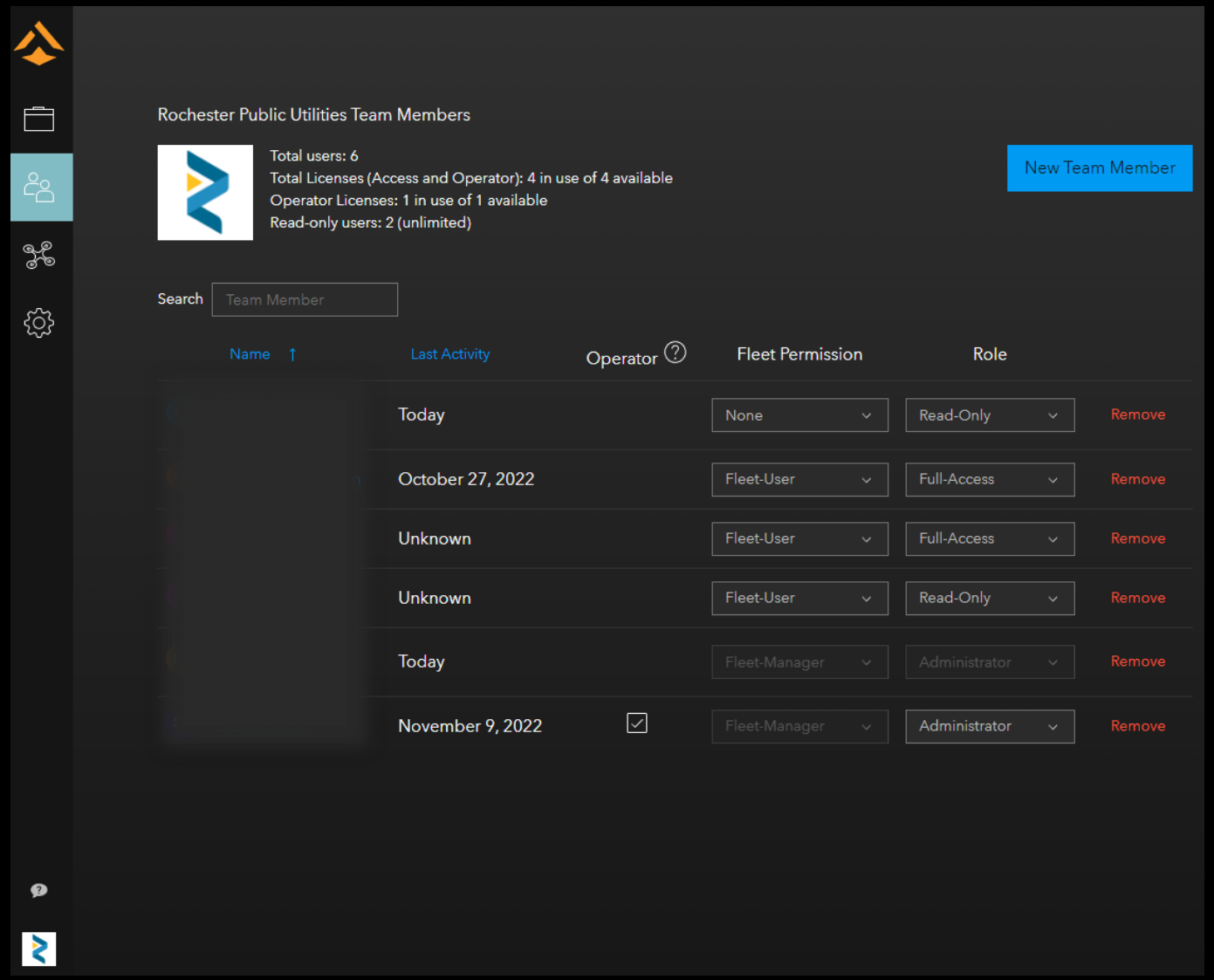
EXPORT AND OTHER OPTIONS

- Share this map View 



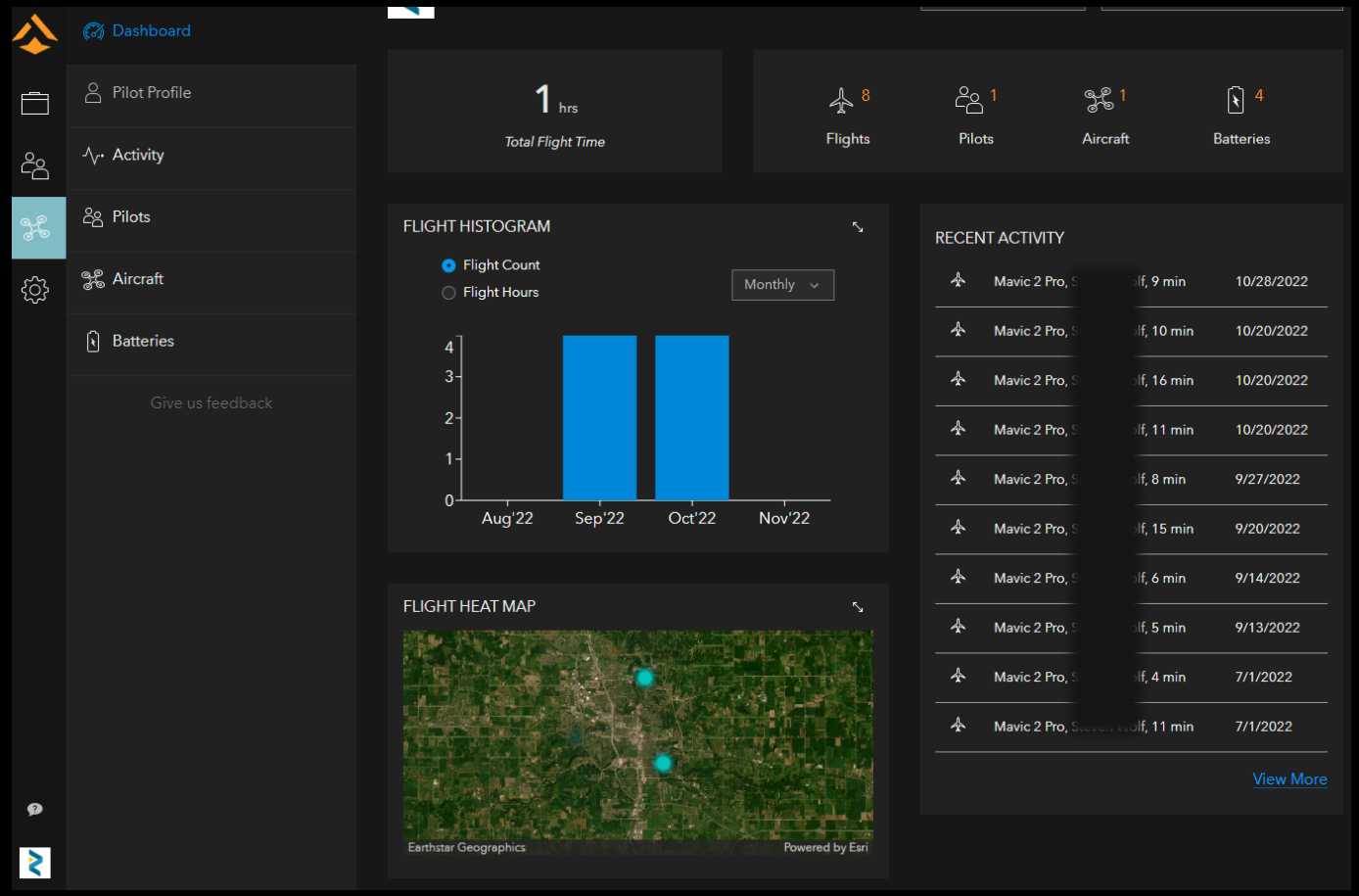
MANAGE TEAM MEMBERS AND LICENSES

- Operator – Can fly drone
- Fleet Permission
- Roles
  - Administrator
  - Full-Access
  - Read Only

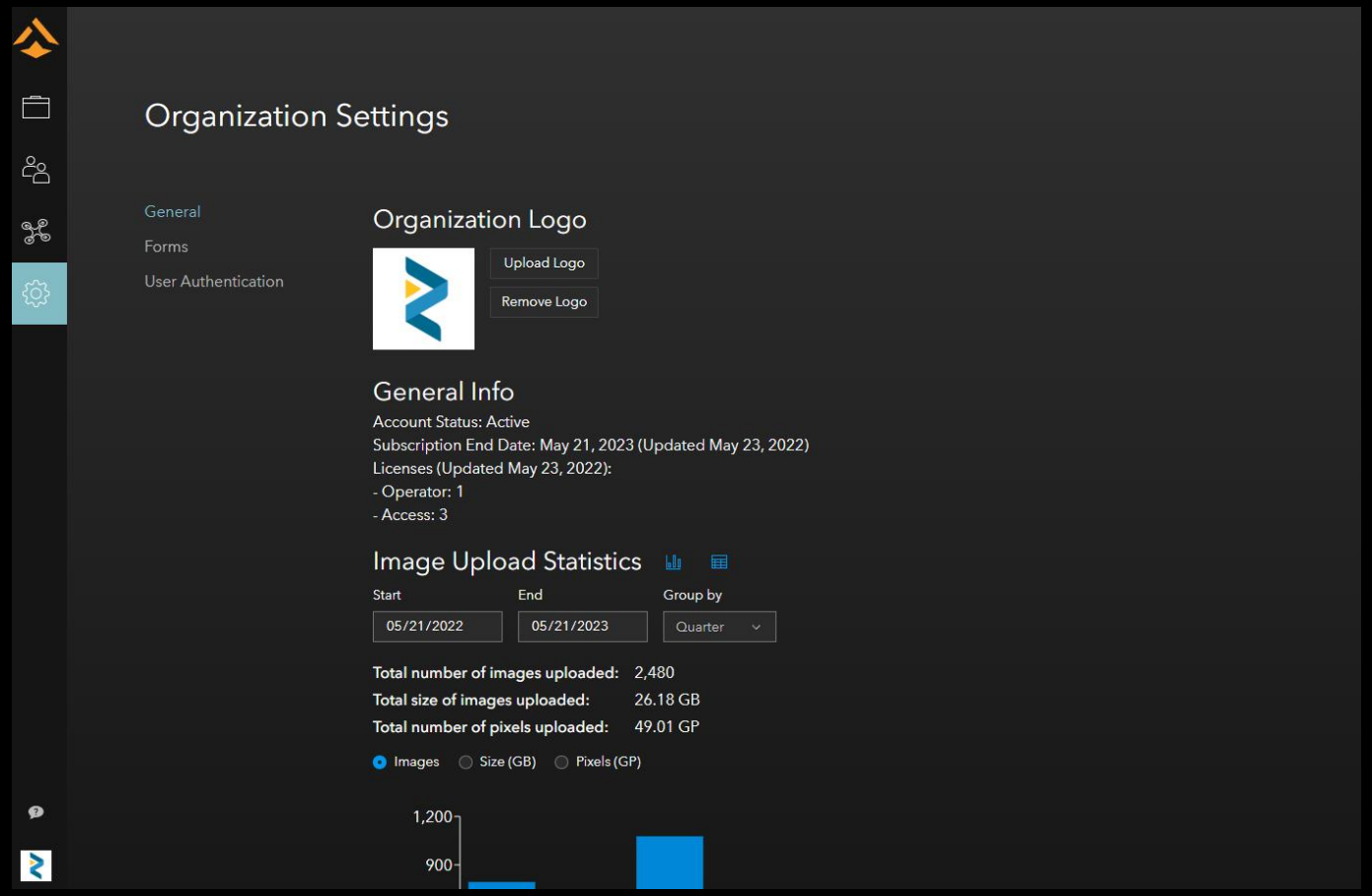


MANAGE DRONE FLEET

- Drones
- Pilot Records
- Batteries



ORGANIZATION SETTINGS



SITE SCAN FOR ARCGIS RESOURCES

- ESRI Blog
  - https://www.esri.com/arcgis-blog/?s=#site%20scan
- ESRI Site Scan FAQ
  - https://www.esri.com/arcgis-blog/products/site-scan/imagery/drone-imagery-and-site-scan-for-arcgis-frequently-asked-questions/
- ESRI Support Search
  - https://www.esri.com/en-us/search/?q=SITE%20SCAN&client=esri_support&page=1
- ESRI Training
  - Getting Started with Site Scan for ArcGIS
  - Creating Imagery Products with Site Scan for ArcGIS
- ESRI Imagery Workflows
  - https://doc.arcgis.com/en/imagery/workflows/resources/creating-drone-imagery-products-with-site-scan-for-arcgis.htm
- Supported Drones and Cameras
  - https://community.esri.com/t5/imagery-and-remote-sensing-blog/site-scan-flight-for-arcgis-matrix-of-supported/ba-p/1009544?rsource=https://esriurl.com/arcgis-flight-app-supported-drones

SITE SCAN FOR ARCGIS RESOURCES

- FAQ: What are the flight modes available in Site Scan Flight for ArcGIS? (Best Practices)
  - https://support.esri.com/en/Technical-Article/000022893