

What is vGIS?

Training Topics Overview



vGIS Overview



Calibrating your Device's
Position and Direction

Recalibrating your
Position and Direction



Navigating the Map Menu



Assessing the Accuracy of Features



Viewing Info Cards



Options Menu



What is vGIS?

vGIS is a visualization platform

Transforms existing GIS and CAD data into 3D visuals using Augmented Reality (AR)



Why use vGIS?

Increase awareness of a user's surroundings

Gain clarity and direction for conducting operations

Increase efficiency of utility locates

Greater understanding of utility assets

Calibrating your Position using GIS assets

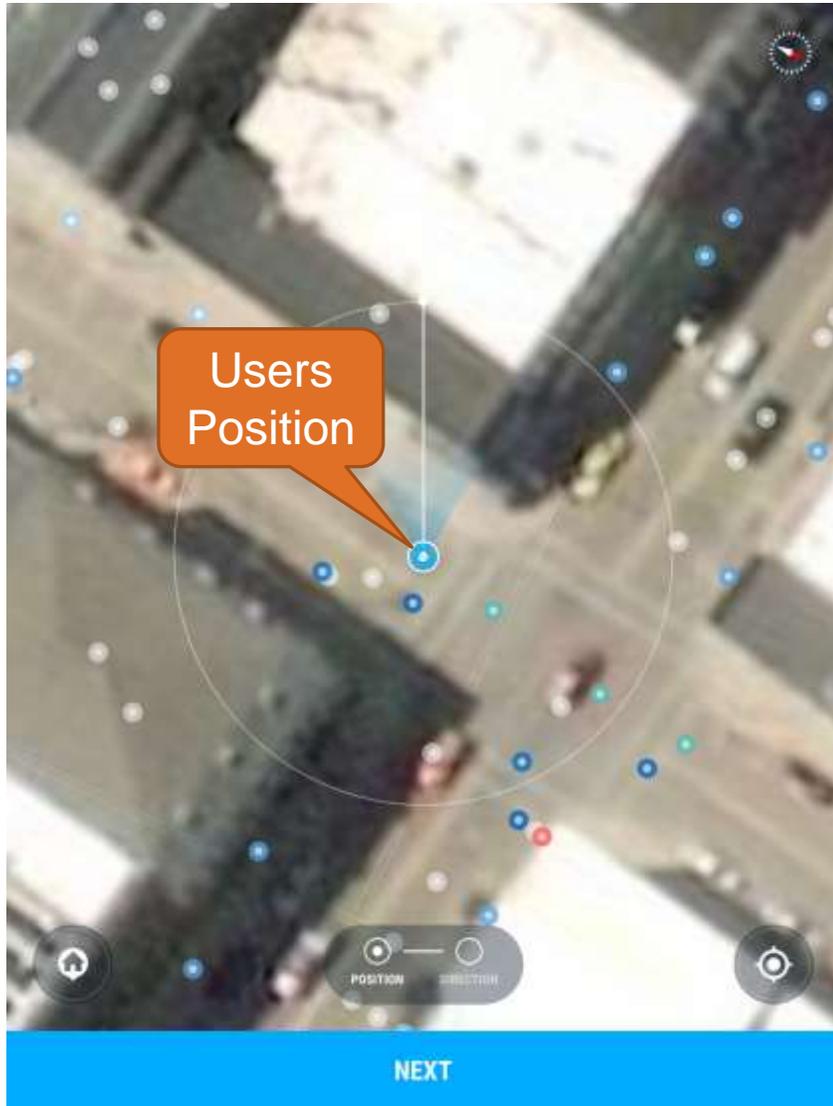
Find an asset that you can locate in the GIS and the real world

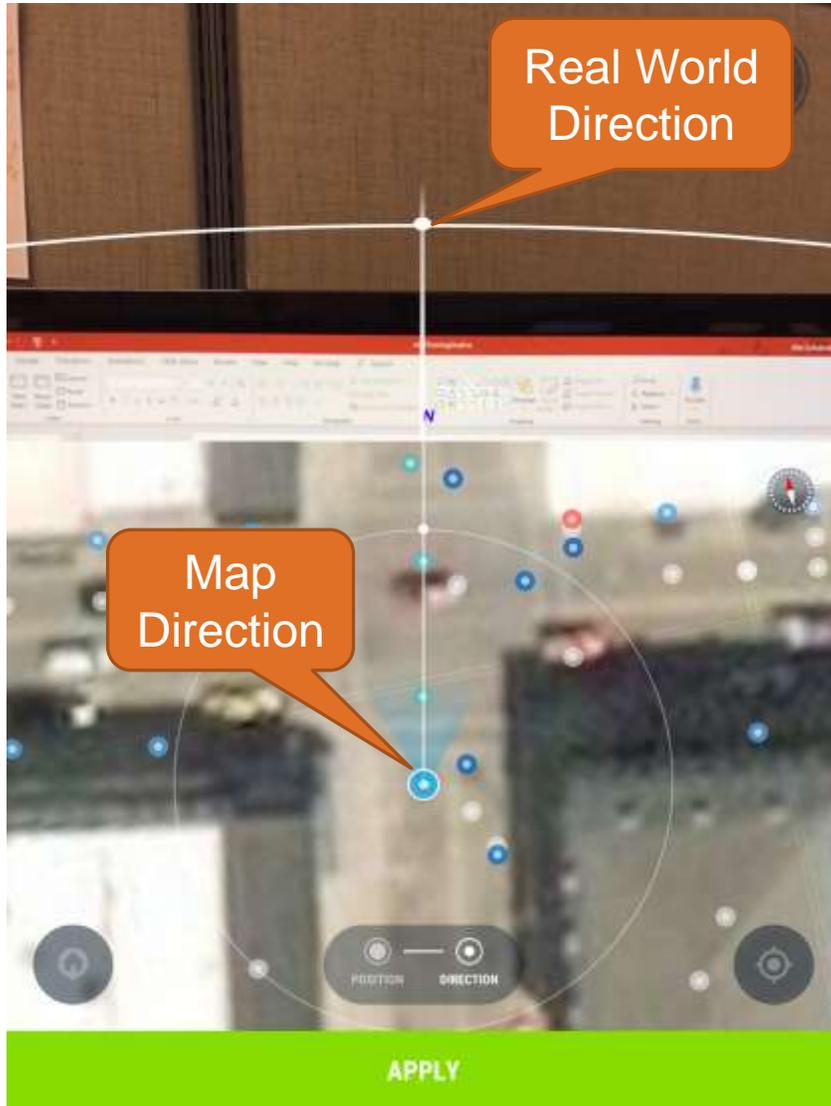
- Valves, Hydrants, Manholes, Catch Basins, etc.

Assets are colored based on their primary color

Place your position over the selected asset

Click “Next”





Calibrating your Direction using GIS Assets

Identify another asset that is 75 – 200 ft away

- Another Manhole, Hydrant, Valve, etc.

Align the white line in the lower screen with the second asset

Then align the white line in the upper screen with that selected asset in the physical world

Click “Apply”

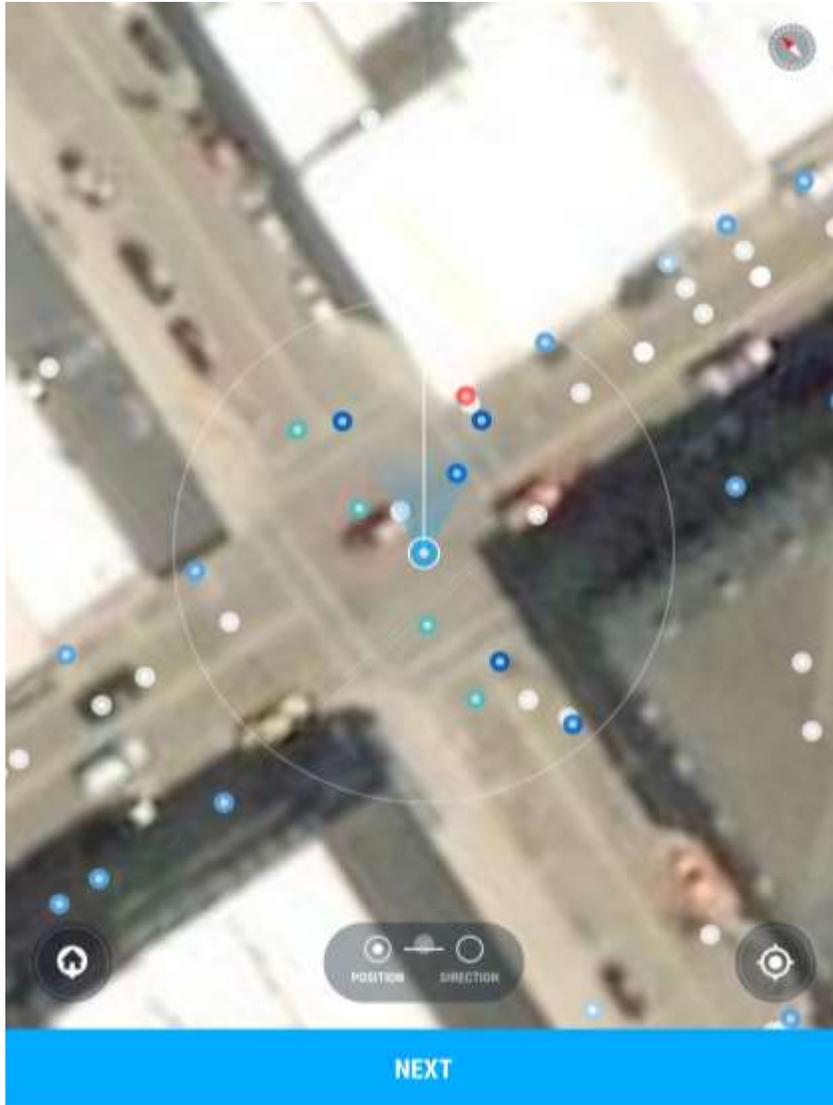
Calibrating your Position without GIS Assets

Find a feature in the aerial imagery that can also locate in the real world

- Parking lot paint lines are a good example

Place your position over the selected feature

Click “Next”



Calibrating your Direction without GIS Assets

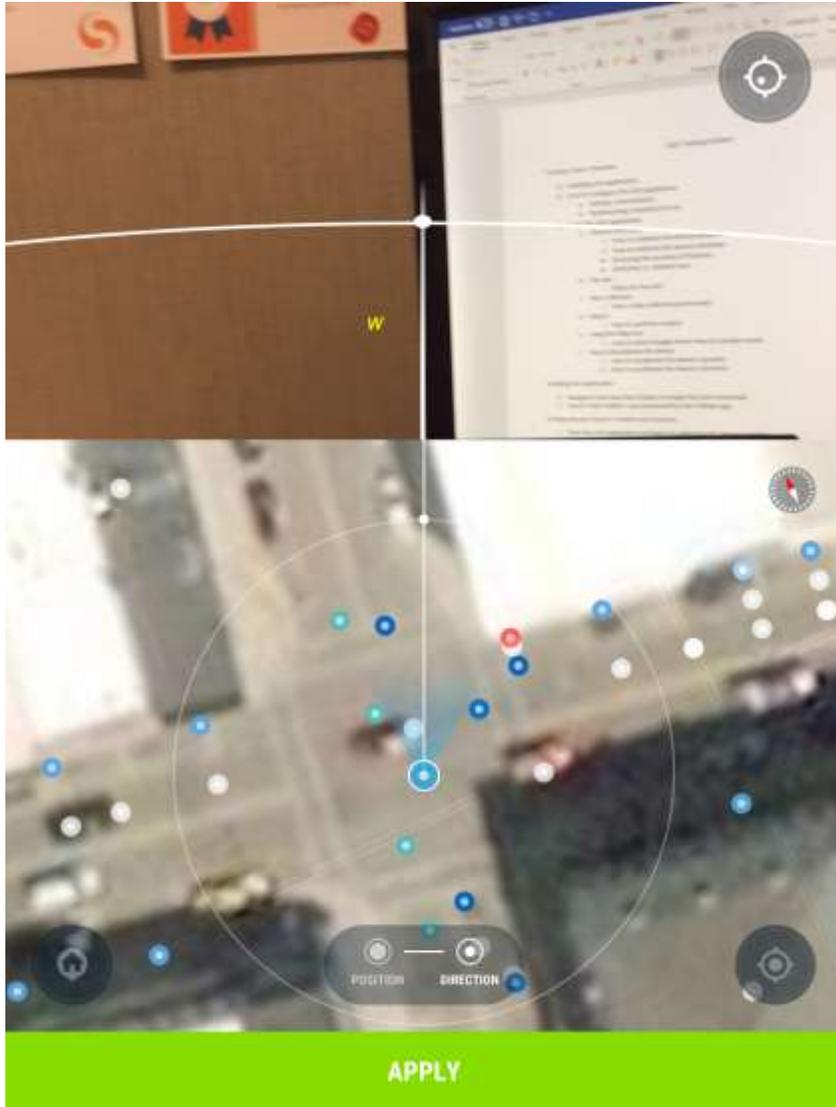
Identify another feature that is 75 – 200 ft away

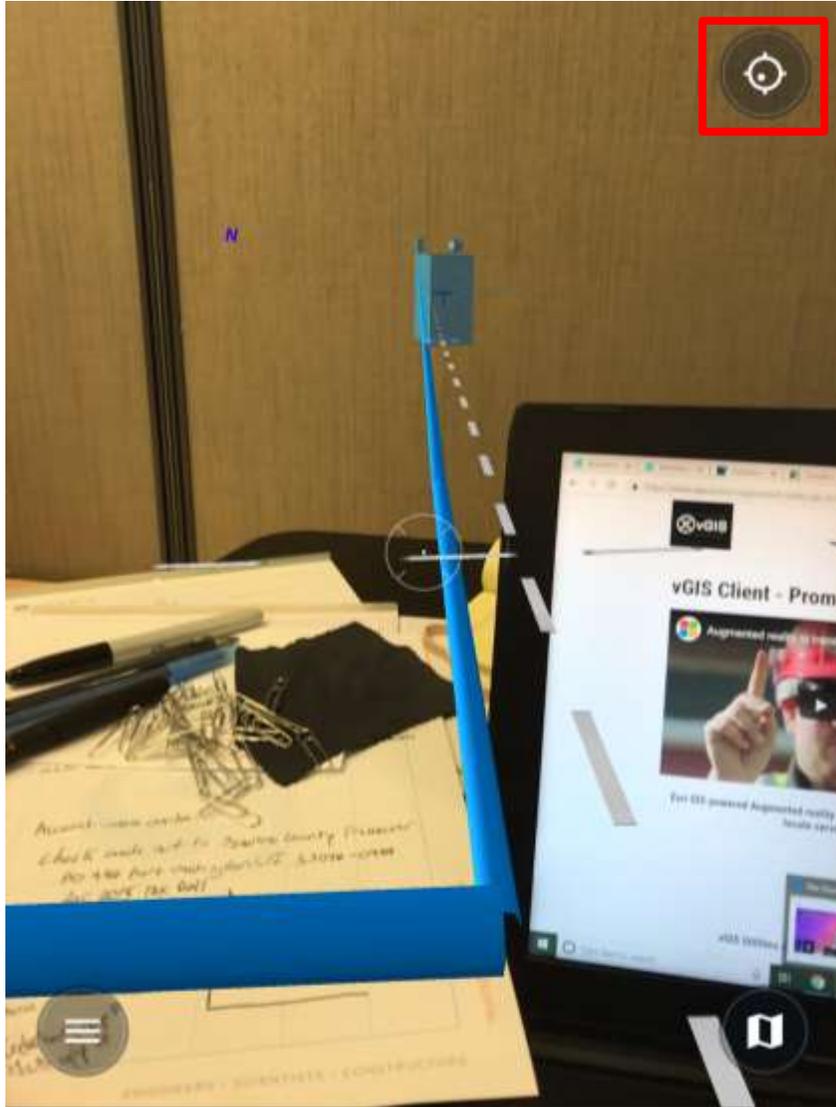
- Use features that do not have a great deal of visual distortion
- Straight curbs are good examples

Align the white line in the lower screen with the second feature

Then align the white line in the upper screen with that selected feature in the physical world

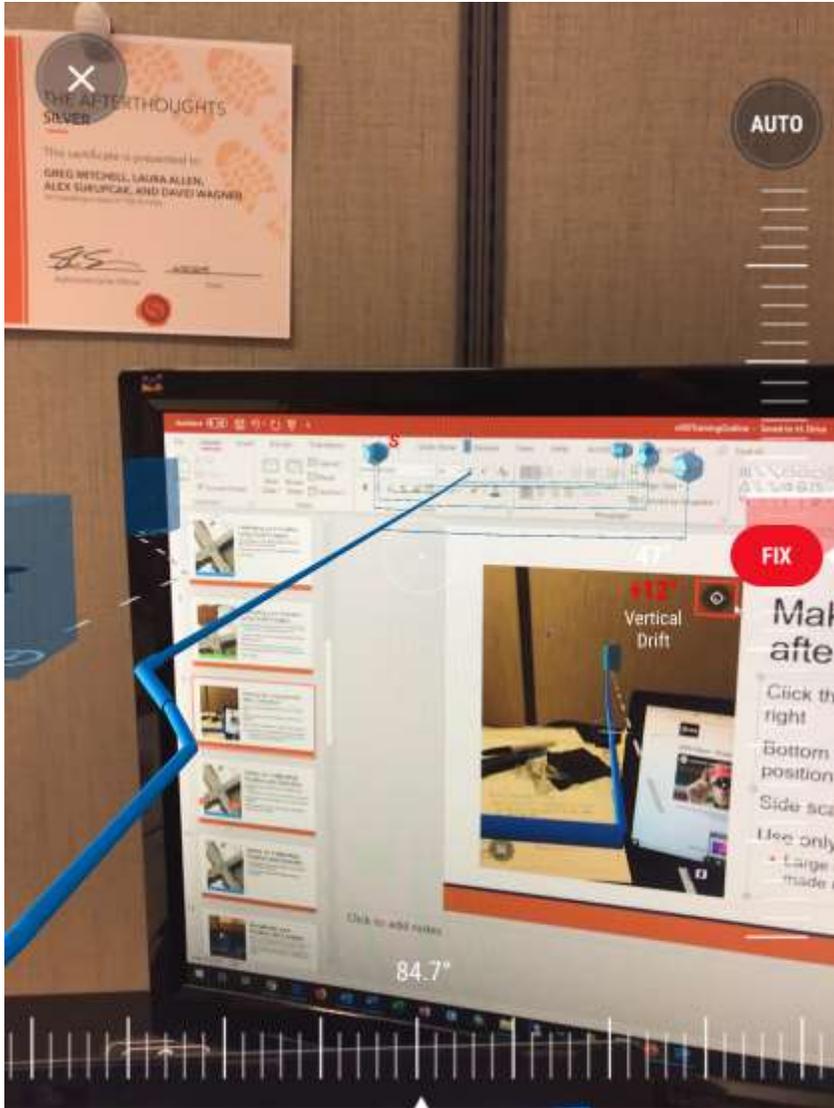
Click “Apply”





Making fine adjustments after Calibration

Click the Scene Adjustment icon in the upper right



Making fine adjustments after Calibration

Using your finger on the main screen will move all features around you

Bottom scale will rotate features around your position

Side scale will adjust the height of the features

- Auto button will allow the system to automatically determine your height

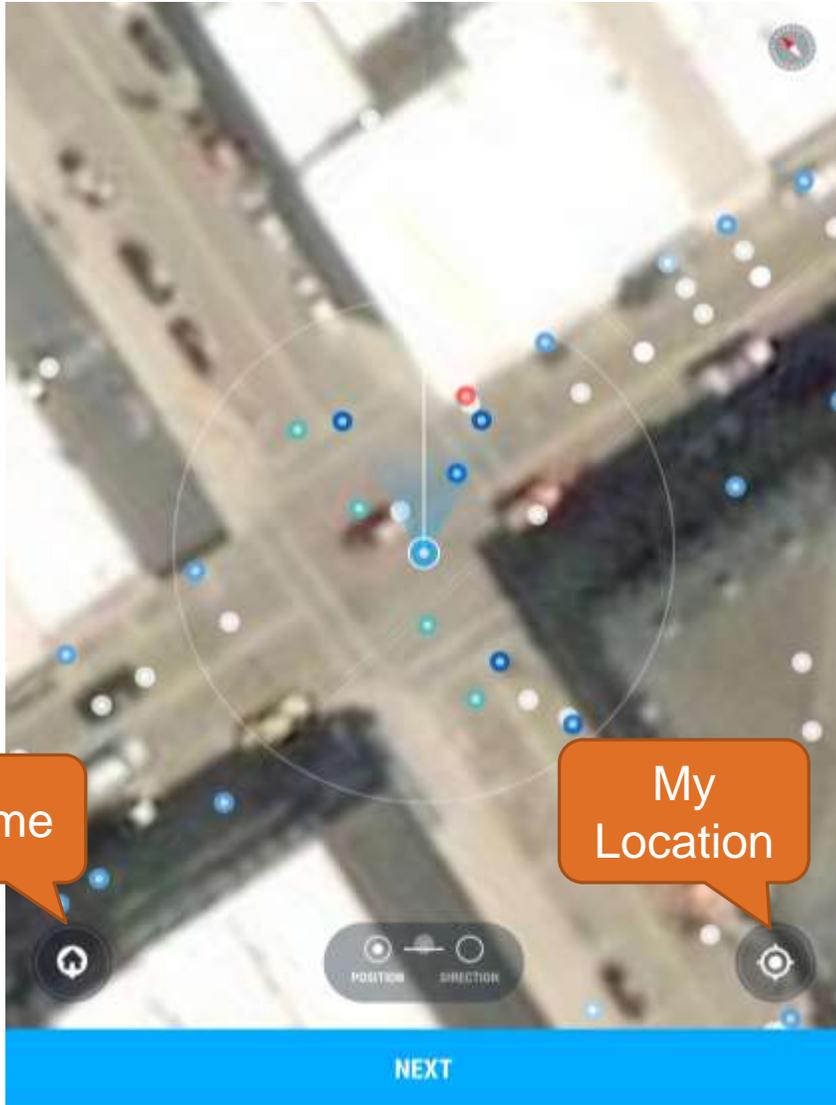
Notes on Calibrating Position and Direction

Home button will take you to a bookmarked location

- Bookmarks are created in the vGIS Admin Dashboard

My location button will take you to your current location

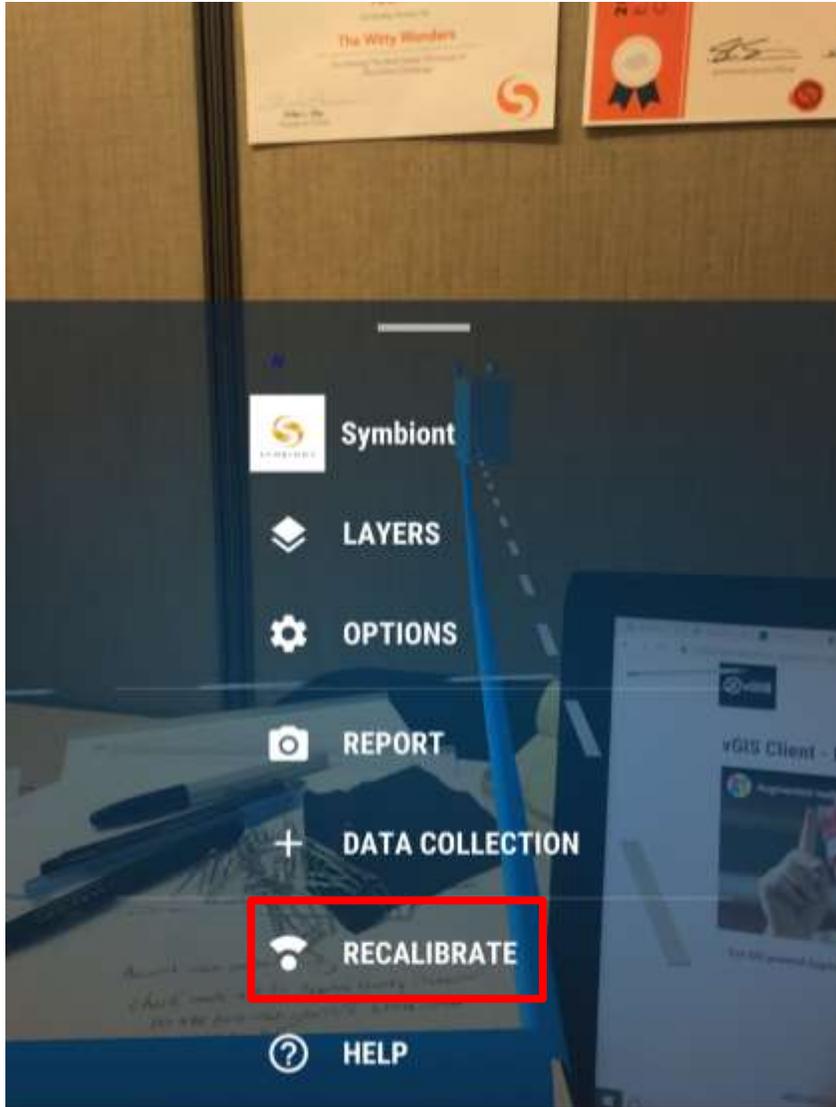
Both buttons work the same when calibrating Position and Location



Recalibrate your Position and Location

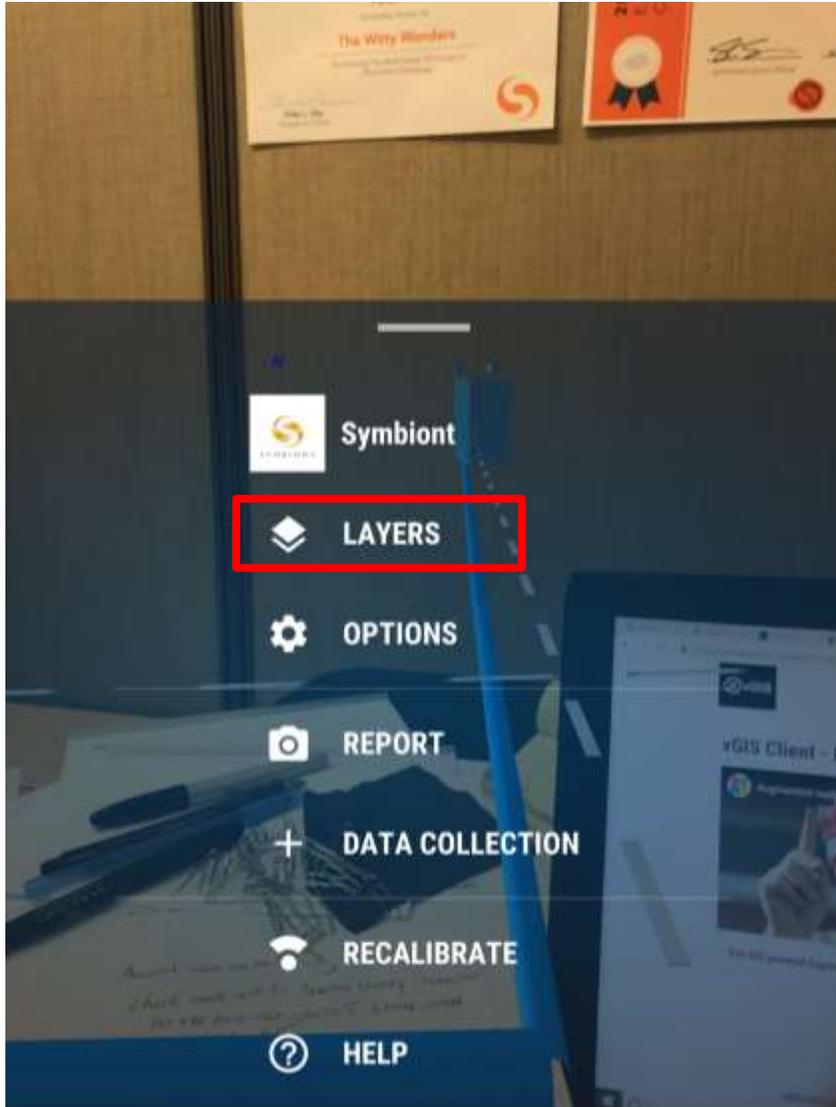
Tap on the hamburger button on the lower left of the screen and navigate to the “Recalibrate” screen

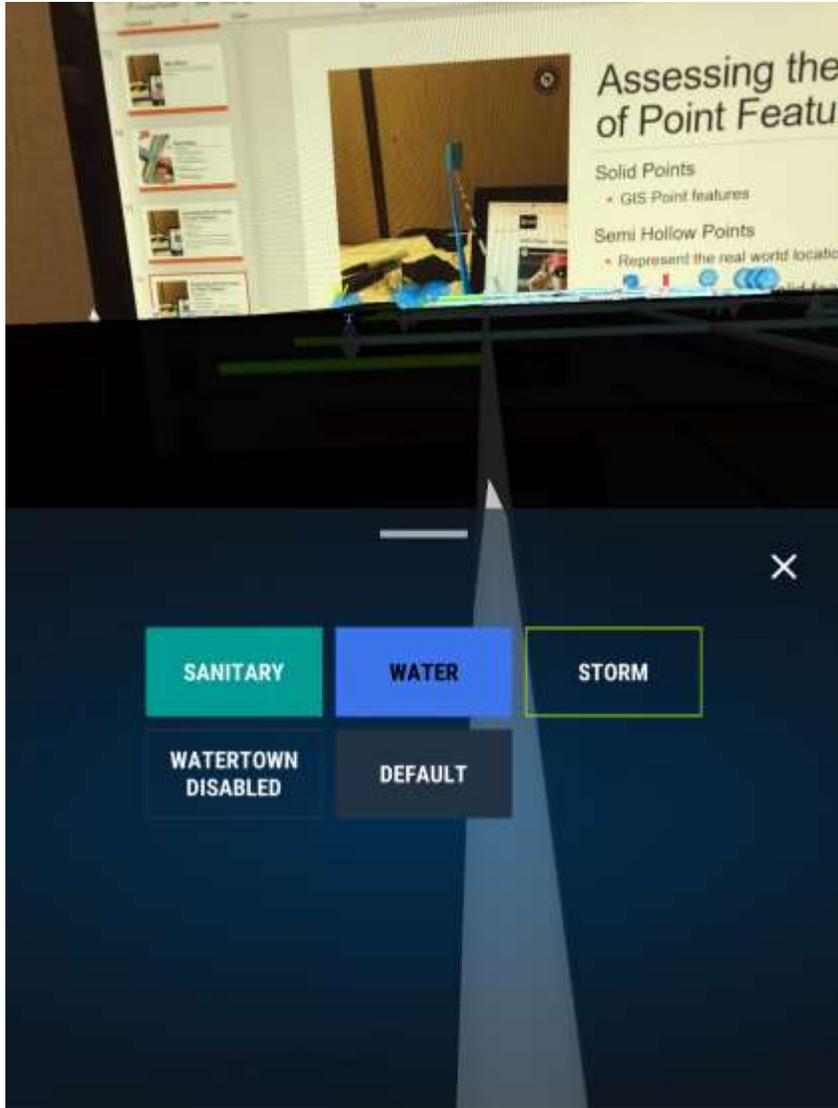
Follow the same steps outlined in “Configuring your Device’s Position and Direction” to recalibrate your device



Toggling Layers On/Off

Tap on the hamburger button on the lower left of the screen and navigate to the “Layers” screen

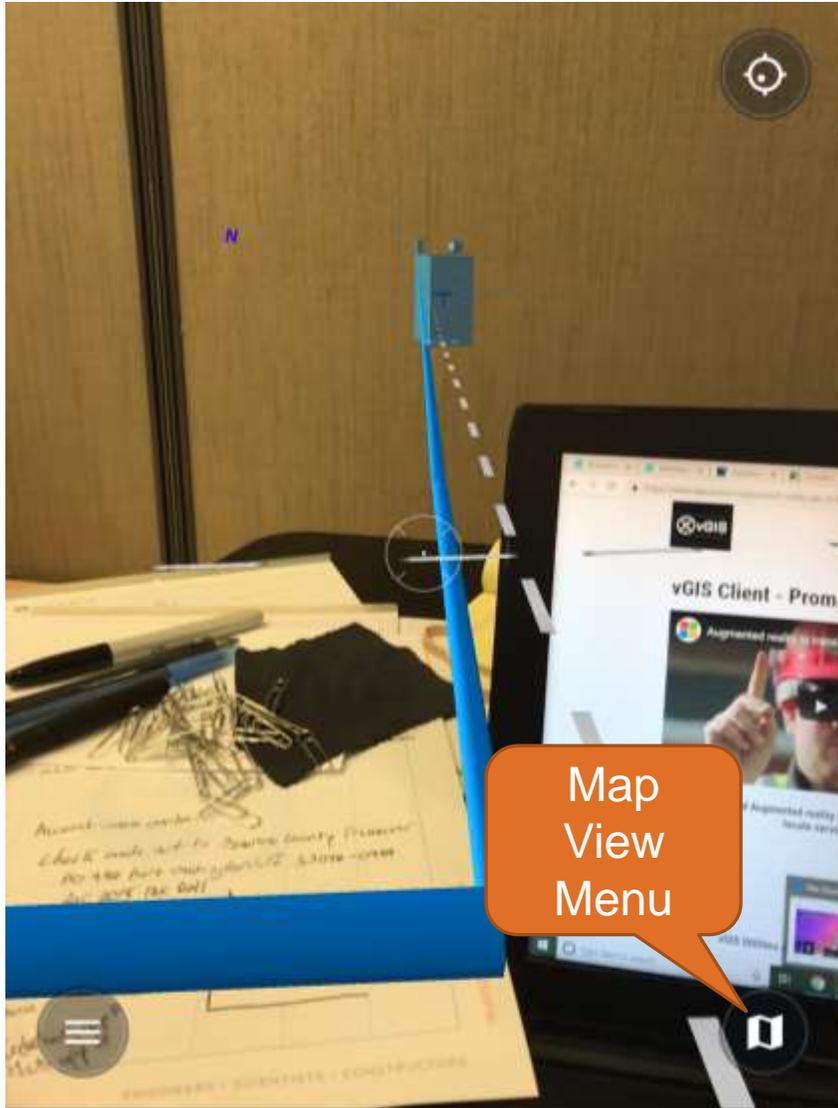




Toggling Layers On/Off

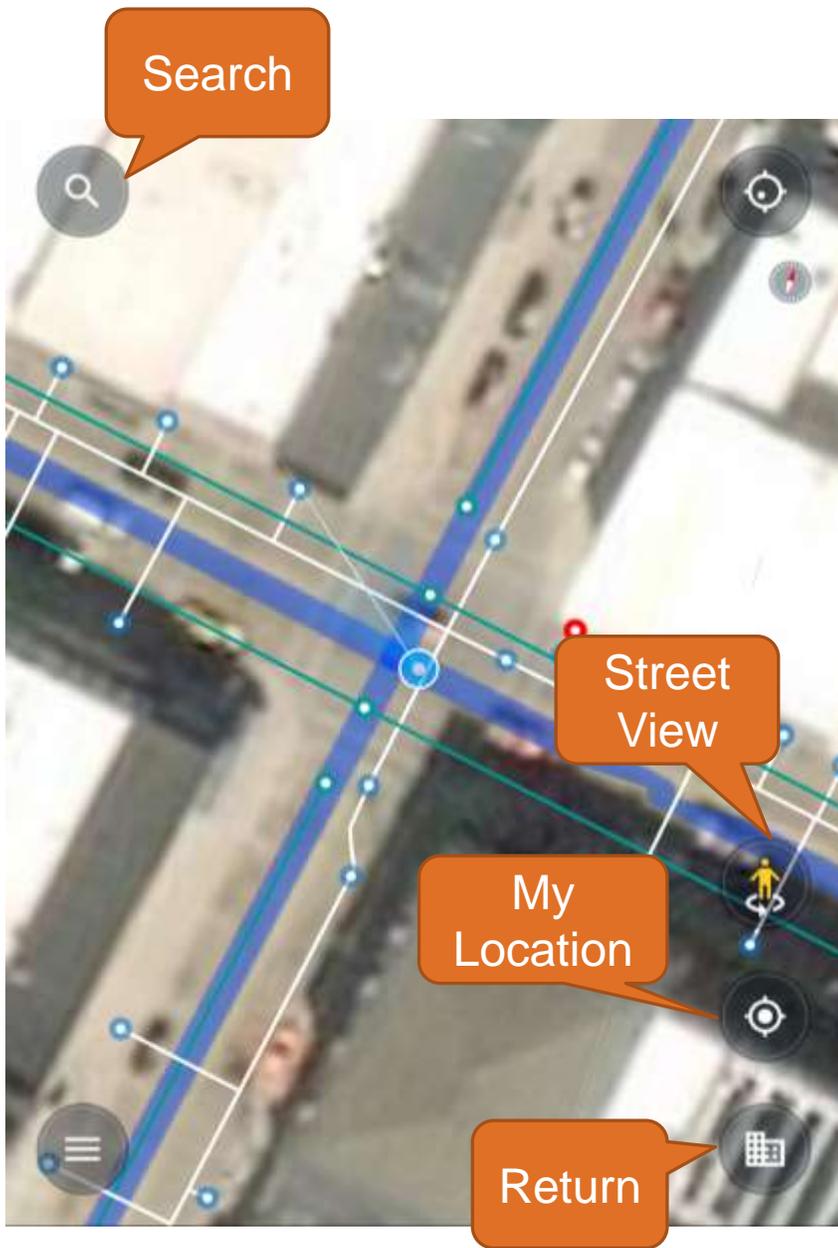
Tap each layer to toggle the layer on and off

Tap the 'X' in the right to exit the Layers menu



Map View Menu

Tap the map in the lower right to access the Map View Menu



Map View Menu

Street View

- Utilizes Google Street View

Search for Addresses

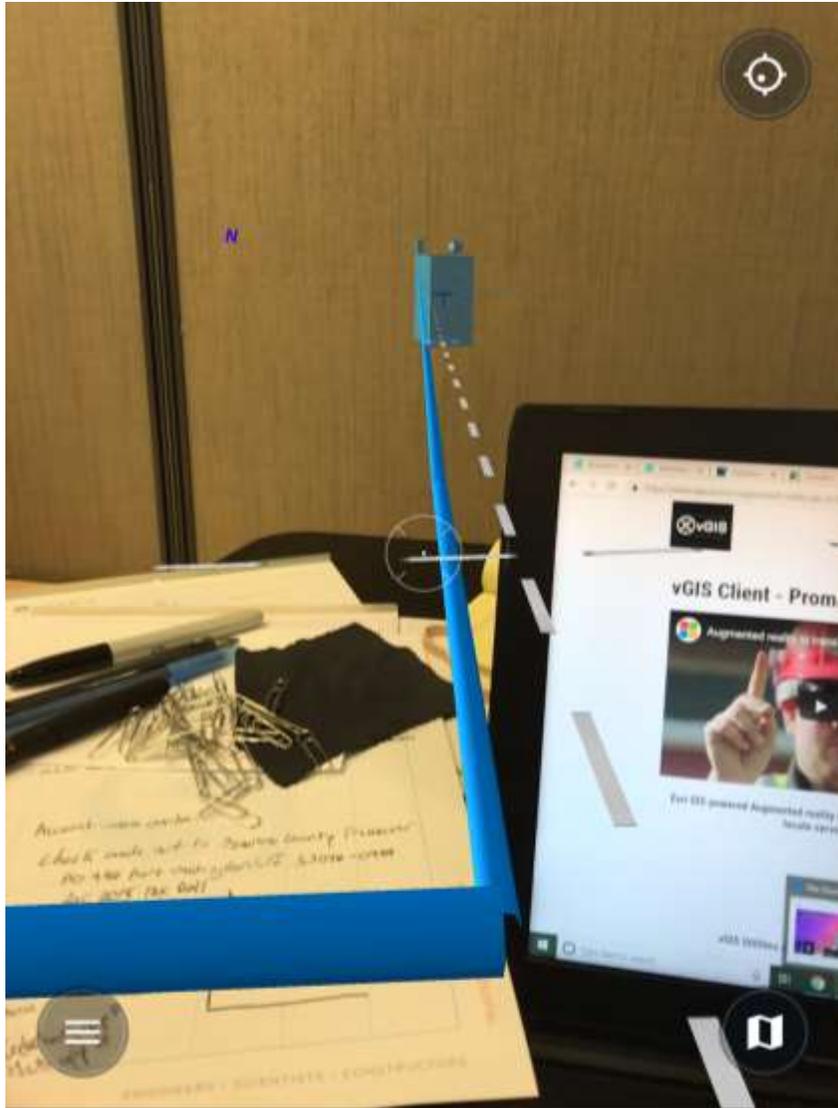
- Same function as Google Maps

My Location

- Return to your device's location

Return to Home Screen

- Return to the vGIS app



Assessing the Accuracy of Line Features

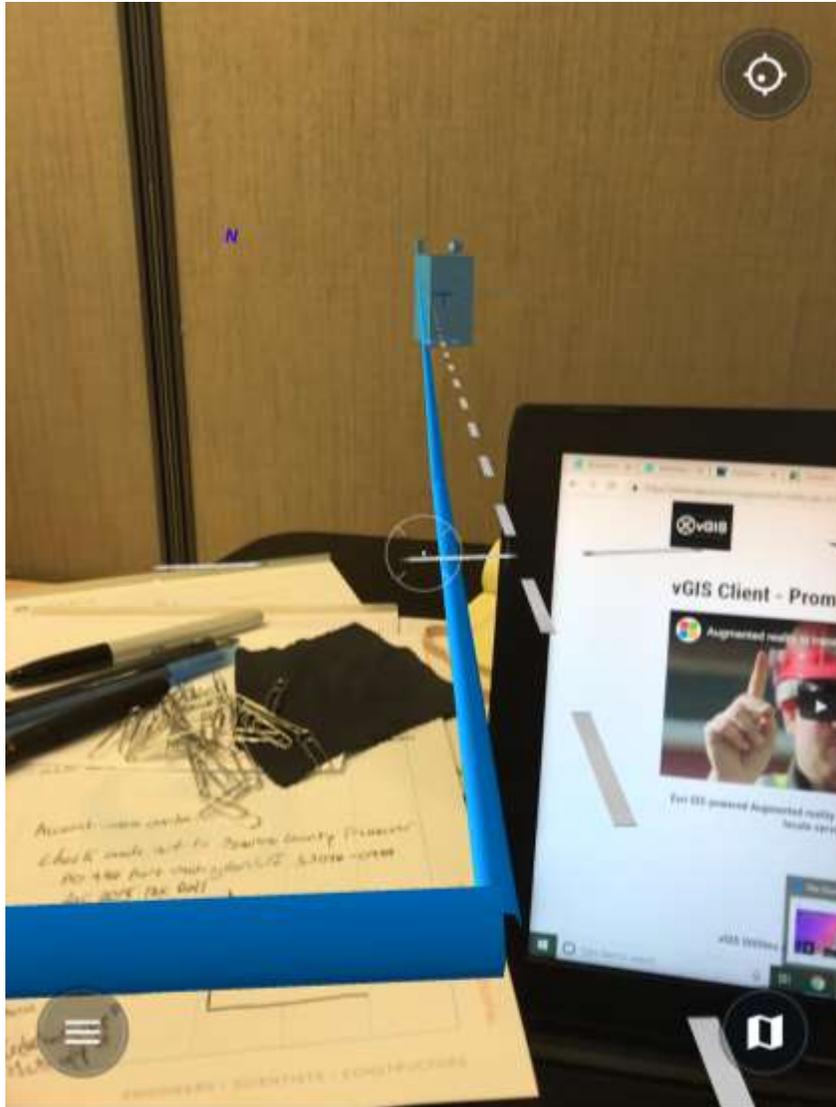
Solid Lines

- GIS Line features

Dashed Lines

- Represent the real-world location of GIS features

As you begin to walk solid lines and dashed lines will line up once you are standing directly over an asset



Assessing the Accuracy of Point Features

Solid Points

- GIS Point features

Bulls Eye Points

- Represent the real-world location of GIS features

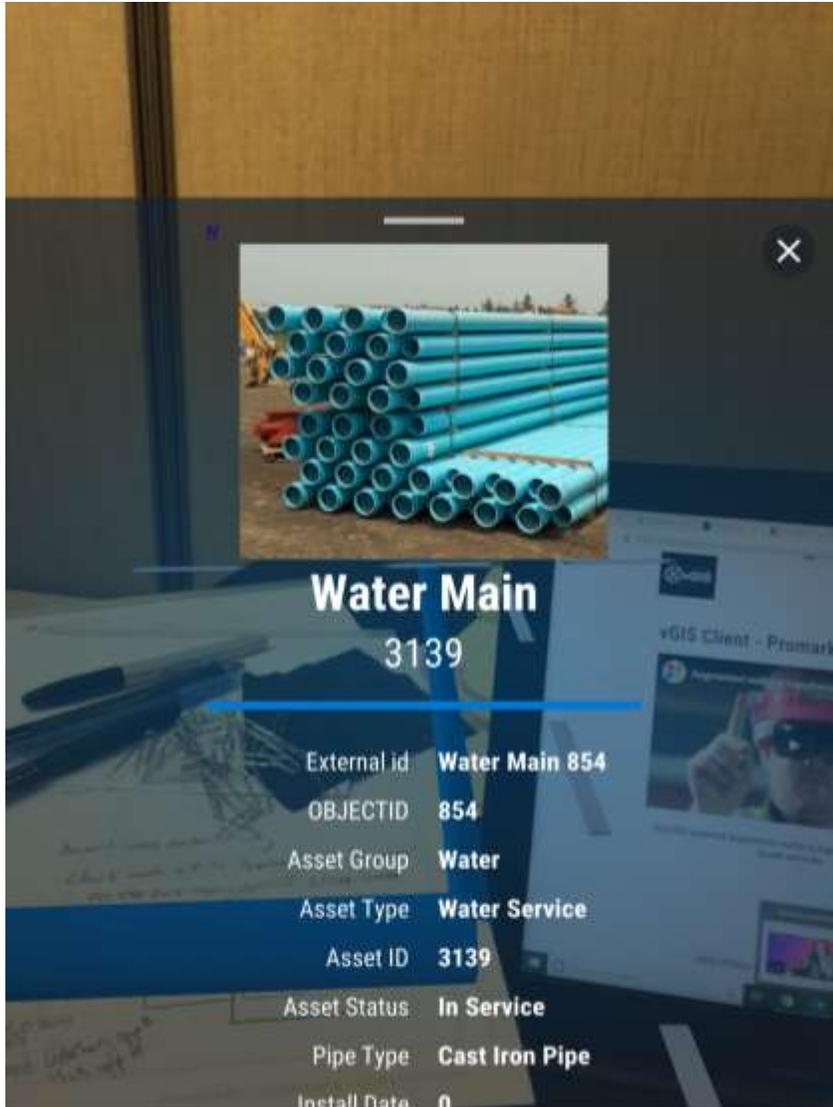
As you begin to walk solid features and hollow points will line up once you are standing directly over an asset

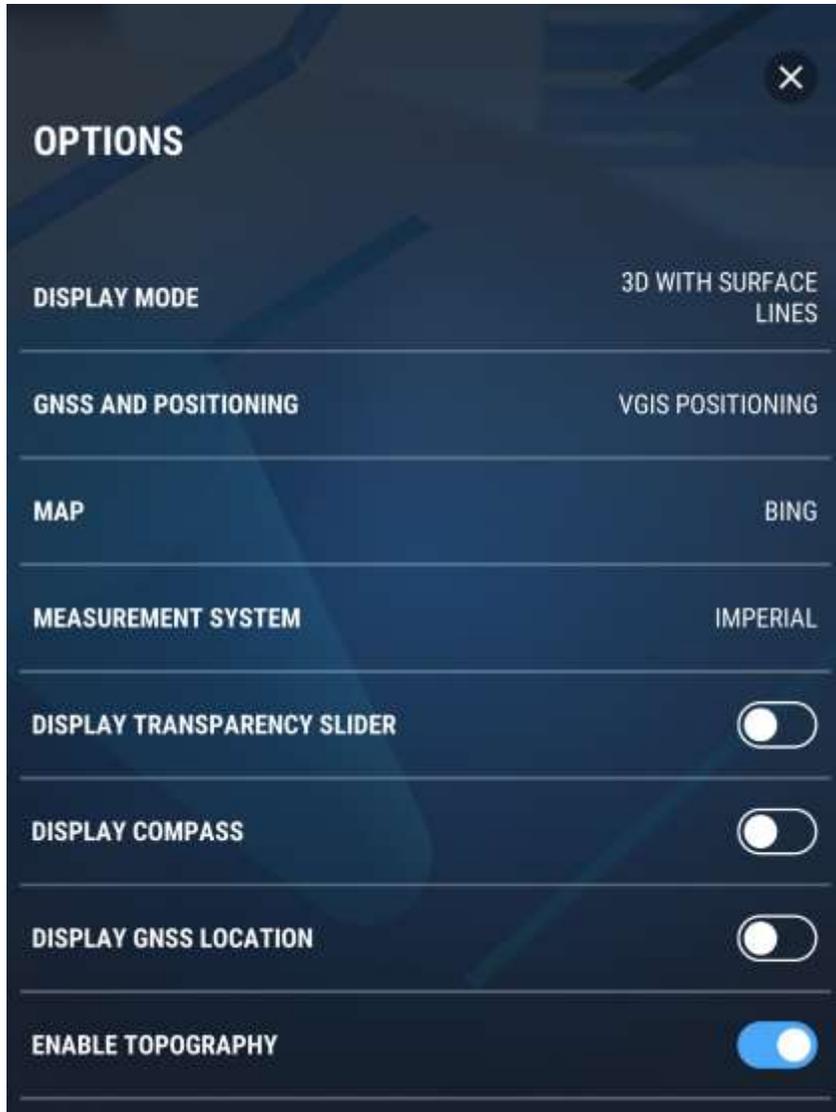
Viewing Info Cards

Tap on the feature to access a features info card

Info Cards contain attribute information reflected in the GIS

Info Card image, Feature ID, Asset Status, Pipe Type, etc.





Options Menu

GNSS and Calibration

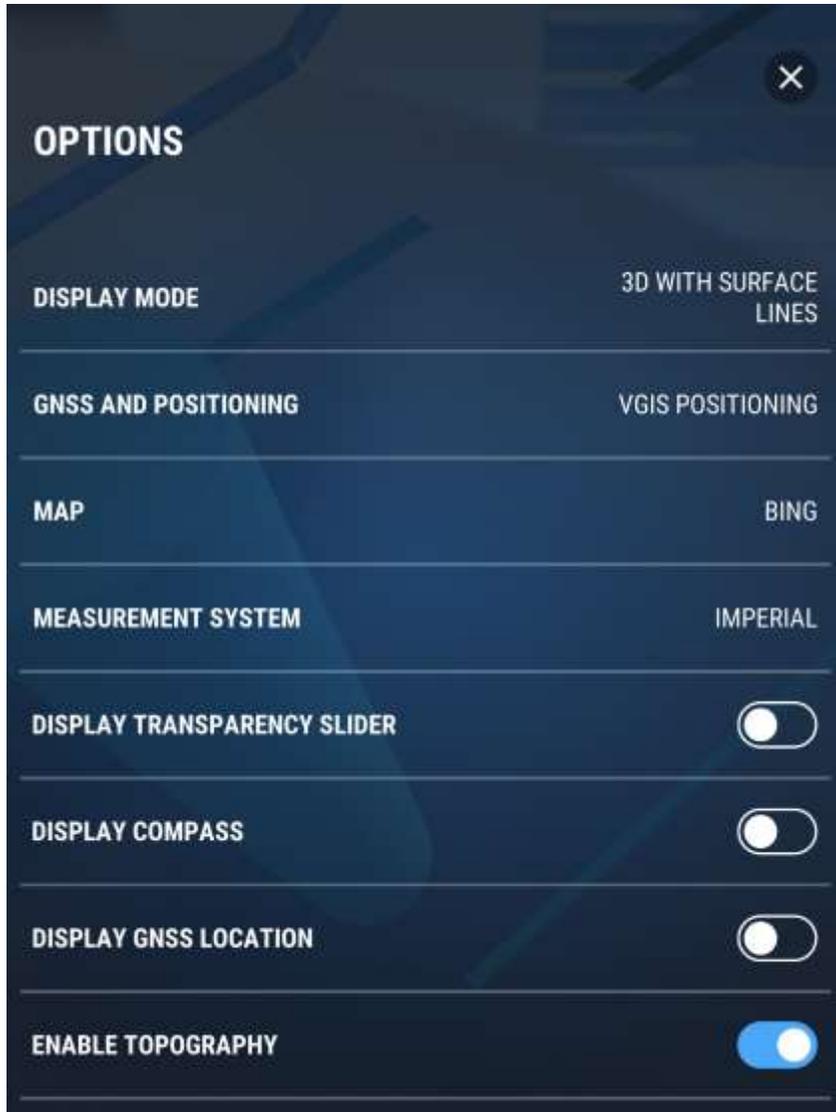
- vGIS Positioning and GNSS
- Compatible with GNSS receivers

Map Provider

- Change basemap provider
- ESRI or Bing

Measurement System

- Imperial
- Metric



Options Menu

Display Transparency Slider

- Shows a slider to further adjust the transparency of features

Display Compass

- Shows or hides compass below the user's feet

Display GNSS Location

- Show the GPS location marker used for calibration
- Mostly used as a location reference for users



Options Menu

Display Mode

- 3D with Surface Lines
 - ◆ Surface projections are permanently displayed in the user's 35 ft radius
 - ◆ Users will see the 3D projections and the dashed surface line markers
- 3D
 - ◆ Displays all objects in 3D
 - ◆ No dashed surface lines are displayed



Options Menu

Display Mode

- Surface Lines
 - ◆ Dashed surface lines are converted into a solid 2D view
 - ◆ 3D data is not shown unless the crosshairs are placed on a surface line
- Surface Lines with Width
 - ◆ All surface lines are shown in a solid 2D view
 - ◆ Surface lines are drawn with object widths



Options Menu

Enable Fixed Height

- Fixes the object locations so they remain below the user's feet
- Designed for use in difficult terrain (hills)

Enable Topography

- Enable or disable topographical corrections
- vGIS utilizes topographical maps to produce the most accurate visuals
- Topo maps are used to adjust the infrastructure to the local topography
- Disabling this option projects data over a flat world