



# Carbon County GIS Mobile Interactive Map

The following is a document designed to help you learn the tools with our mobile friendly version of the Carbon County GIS Interactive Map. Many of the tools are the same as on the previous interactive map, but have been enhanced to give you more options. Several of the tools have been developed by [Robert Scheitlin, GIS Manager for Calhoun County, Alabama](#). The following information was created following [Scheitlin's documentation of the widgets](#).

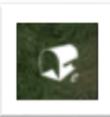
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The following is a list of the different map components, their functionality, and a short guide on how to use them.

**Overview of Map Widgets**

Widget Icon	Widget	Widget Icon	Widget
	Zoom In / Zoom Out		Print
	Home		Legend
	Find My Location		Layer List
	Enhanced Basemap		Swipe
	Enhanced Search		Google Street View
	Enhanced Locate		Elevation Profile
	Share		Show Map Overview



## Map Navigation

### Zoom In / Zoom Out



To zoom into map, click on or tap the “ + ” icon and to zoom out, click or tap the “ – ” icon

### Home



Click or tap on the Home button to zoom out back to the extent of Carbon County

### Find My Location



To find your where you are on the map, click this icon and the following blue marker  will appear where your mobile device is located. To improve location accuracy, make sure your GPS is turned on.



### Navigating the map

Navigation	Mouse	Touch	Keyboard
<b>Pan</b>	<ul style="list-style-type: none"> <li>• Press and hold left button and drag</li> </ul>	 Drag   Flick	<ul style="list-style-type: none"> <li>• Arrow Keys</li> </ul>
<b>Zoom In</b>	<ul style="list-style-type: none"> <li>• Scroll wheel forward</li> <li>• Left double-click</li> <li>• Press and hold left button and drag + Shift key</li> </ul>	 Spread   Double Tap	<ul style="list-style-type: none"> <li>• + Key</li> </ul>
<b>Zoom Out</b>	<ul style="list-style-type: none"> <li>• Scroll wheel backward</li> <li>• Left double-click + Ctrl key</li> <li>• Press and hold left button and drag + Shift and Ctrl Key</li> </ul>	 Pinch   Two finger double tap	<ul style="list-style-type: none"> <li>• - Key</li> </ul>
<b>Rotate</b>		 Two finger hold and twist	

(Source: Navigate the map, 2015)



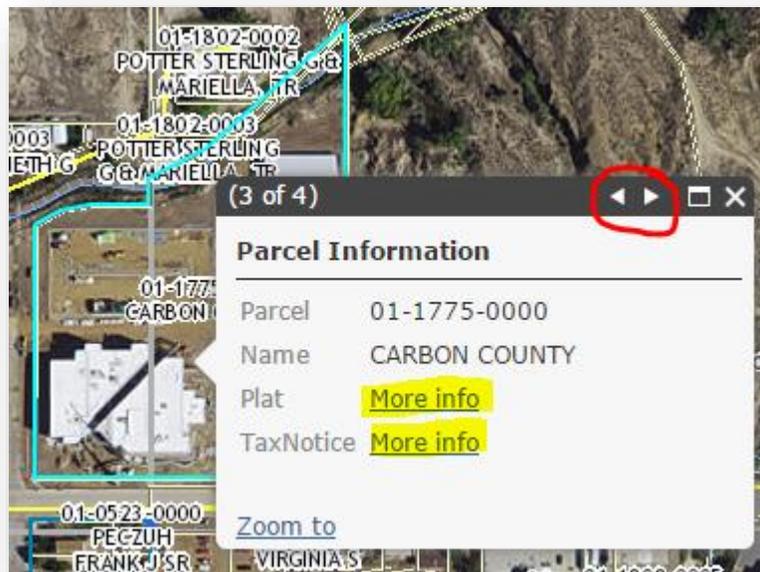
## Identify

To identify any feature in the map

1. Zoom to the feature (parcel, road, address, PLSS marker, etc.)
2. Click on the feature and a pop up window will open.



3. If the information you are looking for is not available right away, click on the arrow to progress to the next feature's information.



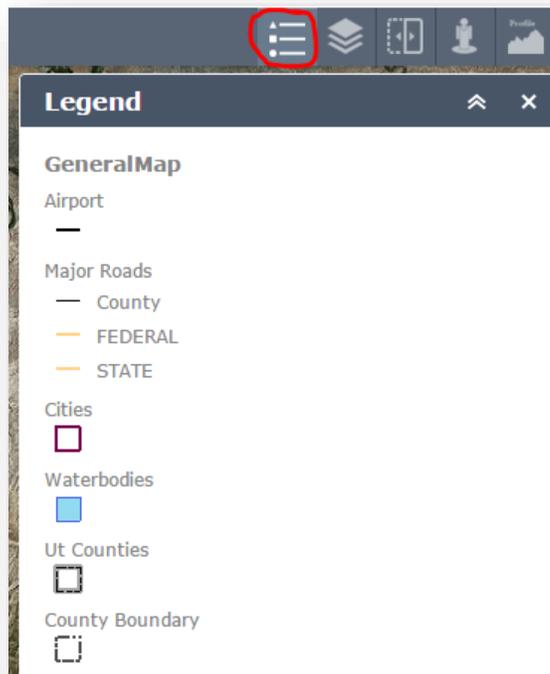
4. Because I was looking for the parcel information, I had to move to the right three times. You may notice some features have links that say "More info" as highlighted above. These will take you to the Records Office plat and Assessors Office Tax Notice PDFs, which are hosted somewhere else in the county.



## Map Widgets

### Legend

The legend is found on the header of the map. It is responsive, meaning that as you zoom in or out of the map, it will only show the layers you can see on the map in the legend. As you zoom in, you will see more layers.





## Layer List

The layer list allows you to turn layers off/on, change their transparency, check out the description of the layer, and zoom to the layer.

The screenshot shows the GIS interface with an aerial map. An **Enhanced Search** window is open, displaying details for parcel **01-1775-0000**. The details include: Name: CARBON COUNTY, Name2: Add1: 120 E MAIN ST, Add2: City: PRICE, State: UT, Zip: 845010000, Acres: 5.41, and links for [Plat Link](#) and [Tax Notice Information](#). The parcel is highlighted in red on the map.

The **Layer List** window is also open, showing a list of layers. The **Search Results: Carbon County Parcels** layer is checked and highlighted with a red circle. Below it, the **GeneralMap** layer is also checked, and its transparency is set to 50%.

At the bottom, a search results table is visible:

Plat	State	TaxNotice	Zip
75-0000	UT	<a href="http://www.carbon.utah.gov/pagetype=results&amp;Tax%201775-0000%27%7D">http://www.carbon.utah.gov/pagetype=results&amp;Tax%201775-0000%27%7D</a>	845,010,000

- Above: you can see that after a search was done on parcel '01-1775-0000', the highlighted parcel was added to the layer list. You have all the same options as any other layer in the list.



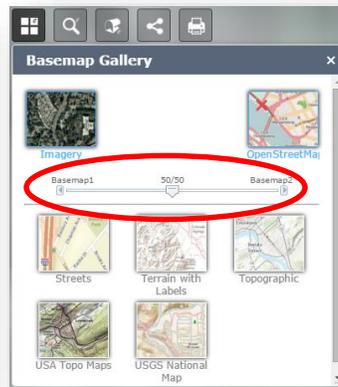
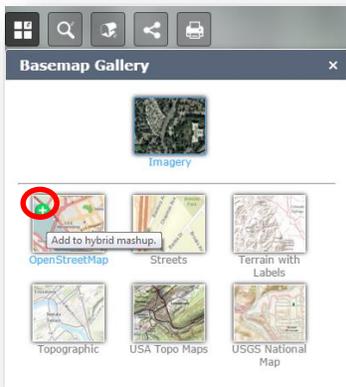
## Enhanced Basemap



The Enhanced Basemap makes it so you can switch between the following basemaps: Imagery, OpenStreetMap, Streets, Terrain with Labels, Topographic, USA Topo Maps, and USGS National Map. The default basemap is Imagery.

Besides switching from one basemap to the other, the Enhanced Basemap widget allows you to hover over one of the other basemaps below imagery and the green " + " icon will appear.

1. Click on the " + " to create a hybrid between the Imagery and OpenStreetMap.
2. Move the slider left and the Imagery Basemap will become more visible.
3. Slide the marker right and the OpenStreetMap will be made the primary basemap with imagery showing through vaguely.
4. Once you have the basemap how you want it, you can click on the " X " in the corner to close the widget and your basemap settings will be saved.

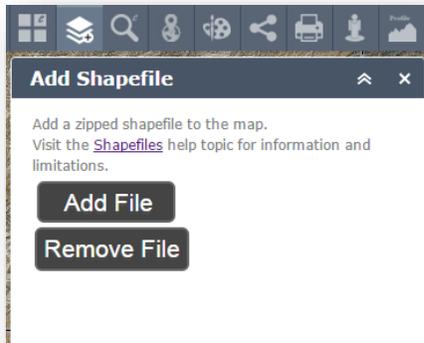




## Add Shapefile

To add a shapefile your layer must be in a zipped file and should include at least the following file types:

- .shp
- .shx
- .dbf



Prior to using this tool, you will need to have your shapefile packaged as a zip file. Click on 'Add File' then navigate to

## Enhanced Search



To search, click or tap on the magnifying glass shaped icon. There are four tabs within the Enhanced Search widget: By Shape, By Value, By Spatial, and Results.

### By Shape

Using the drop-down arrow, select the desired search layer → Click the next drop-down to indicate if you are "Creating new results", "Add to current results", or "Removing from current results".





**“Select features by”:**

Select features by



- Enable multi-part graphics
- Add search tolerance to point selection
- Include text query in selection criteria
- Buffer Graphic

Point: When selected, anywhere you click on the map, the search layer features will be selected on the map and highlighted in the attribute table.

Line: Left click anywhere on the map, drag, move the mouse to where the end should be and let go of the left click. The search layer features will be selected and highlighted in the attribute table.

Polyline: Left click anywhere on the map, move the mouse, left click again to add a turn or bend in the line, adding as many points as desired – double click to end line. The search layer features will be selected and highlighted along the line on the map and in the attribute table.

Extent: Left click, hold, and drag on any given area on the map to draw a square or rectangle to select, highlight, and display search results in the attribute table.

Circle: Left click, hold, and drag on any given area on the map to draw a circle which will select search layer features and display results in the attribute table.

Polygon: Similar to a polyline, left click anywhere on the map, move the mouse, click again to add as many points – double click to finish the polygon. The search layer features will be selected and highlighted along the line on the map and in the attribute table.

- If you check on the **enable multi-part graphics** then when you complete drawing on graphic you and can continue to draw the same geometry type (**points, lines, polylines, extents, circles, or polygons**) and once you have drawn all the graphics you wish to search by then you can click Search to execute the search.
- If you don't check on the **enable multi-part graphics** then when you complete drawing on graphic the search is automatically executed.



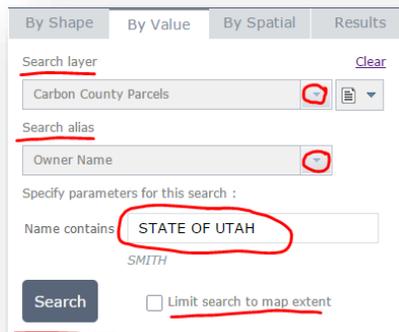
- If you choose the point graphic draw tool and are attempting to search for line or point feature then you should use the **Add search tolerance to point selection**.



- If you choose the point graphic draw tool and are attempting to search for line or point feature then you should use the **Add search tolerance to point selection**.
- If you choose you can buffer the graphics after it is drawn but before the search occurs by checking the **Buffer Graphic** checkbox and adjusting the distance and units if desired.
- If you choose to add or remove from the current search results using graphical searches as well as By Value searches.

### By Value

Using the drop-down arrow, select the desired search layer → Click the next drop-down to indicate if you are “Creating new results”, “Add to current results”, or “Removing from current results”.



- “Search alias” refers to how you want to search – for Carbon County Parcels, the “Search Alias” options are: Parcel Number and Owner Name.
- Type in the Parcel Number or Owner Name in the Search Box → Search
- Clicking “Search” will look for every feature in Carbon County – Clicking “Limit search to map extent” will only search the area your screen shows.
- Results of the search are always brought up in the “Results” tab.

### By Spatial

Using the “By Spatial” tab of the Enhanced Search widget, creates a buffer based on the number of units and type of units specified on the “By Spatial” tab.

1. Select features using either the “By Shape” or “By Value” tabs
2. Apply a search distance –
  - a. Choose a type of units: feet, miles, or meter
  - b. Indicate how many units in the box Ex. 50 Feet
  - c. Choose a layer to buffer by selecting from the “Search entities of:” drop-down

- d. Click on the apply buffer icon:



(The buffer is now an operational layer meaning you can turn it on/off)

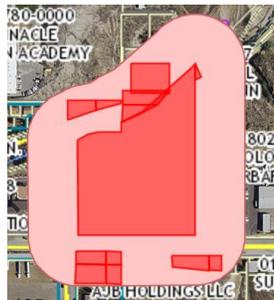


- e. Now click on one of the four options to select parcels adjacent, touched by, contained within, or intersecting your buffer:



- f. It will ask you if you want to use the Buffer Graphics or the Selection Graphics to perform the selection. The Selection Graphics is the feature selected and the Buffer Graphics is the buffer you created in steps a-d.

In the example below, the search was done "By Value" on Parcel '01-1775-0000'. The buffer of 200 ft was applied to "Buffer Graphics", and it selected all the parcels "entirely contained in" the buffer.



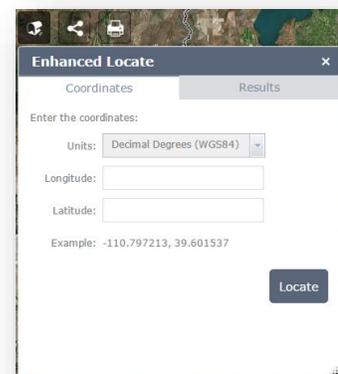
- g. Click "Clear Buffer" and you are left with the selected parcels entirely contained within 200 ft of the selection. Those parcels are also selected in the attribute table.

**Results:** This is the tab where all selections with their attributes will be shown. You can Zoom All or Clear your selection within the tab.

## Enhanced Locate

Using the Enhanced Locate widget, you can enter coordinates to find a location on the map.

1. For Decimal Degrees (WGS84), enter Latitude and Longitude, then Locate. Notice: Longitude is entered before Latitude without any cardinal directions.





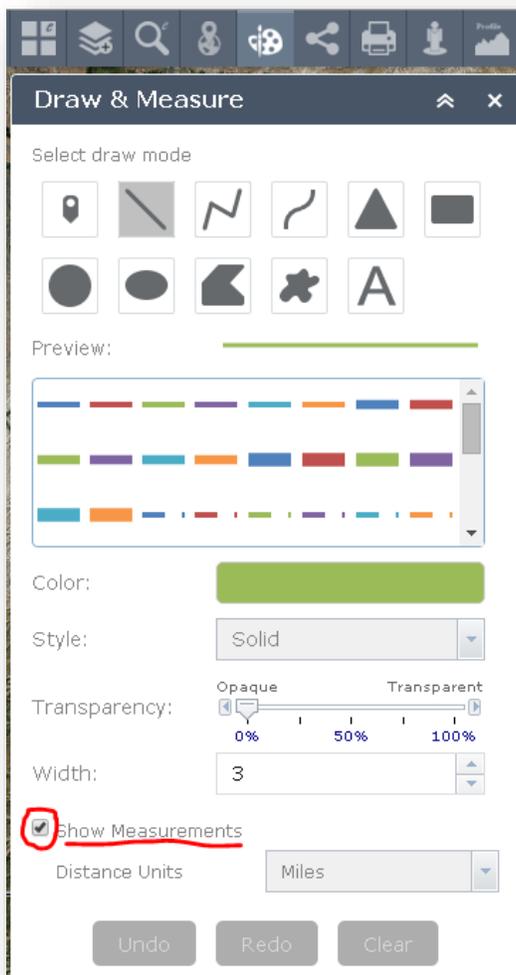
### Latitude/Longitude Read-out Toolbar

In addition to enhanced locate, there is a tool in the bottom right of the screen which allows you to get a latitude/longitude read-out from the position of your cursor on the screen.



By selecting the icon highlighted in the red box above, then clicking anywhere on the map, you can get the coordinates of a desired location. Once you click the screen, the degrees in the toolbar will freeze and a green, pointer icon will appear on the screen. This allows you to record a desired location.

### Draw & Measure



The "Draw & Measure" tool is very similar to the old version of the IMS. Click on the paint brush and color palette to open the widget, then do the following:

- a) Select a draw mode. Options include: point, line, polyline, freehand polyline, triangle, extent (rectangle), circle, ellipse, polygon, freehand polygon, or text.
- b) Change the style of the line or outline/fill. You may want to consider changing the: color, transparency, outline color, and outline width.
- c) Near the bottom of the 'Draw & Measure' widget is the box 'Show Measurements'. You must select this to get the area and distance measurements for a line or polygon. Change the Area Units and Distance Units by selecting the drop-down arrow next to each measurement unit. The measurements will show up in black, italicized text on or near your drawings.
- d) Once you have drawn features, you have the option to undo/redo individual features, or clear all drawings from the map completely.



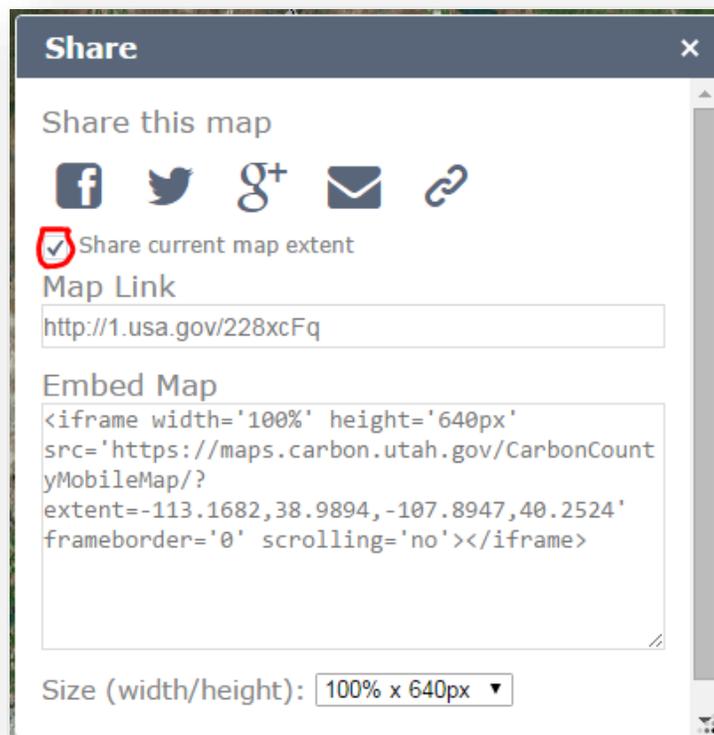
## Share

With the share widget, you can zoom to any location on the map and share that view of the map through Facebook, Twitter, Google+, Email, or even a URL link or you can even embed it into a webpage by copying the HTML.

1. Zoom to the area of the map you want to share



2. Click on the Share widget icon .
3. Make certain the "Share current map extent" is checked.
4. Copy the "Map Link" and paste it into desired location.

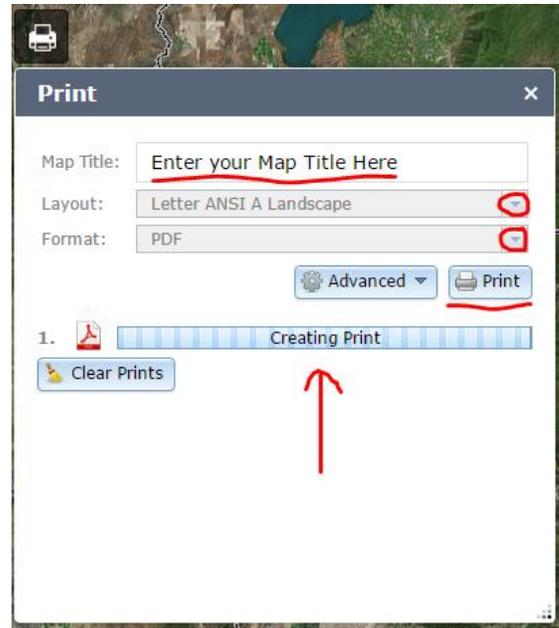




## Print

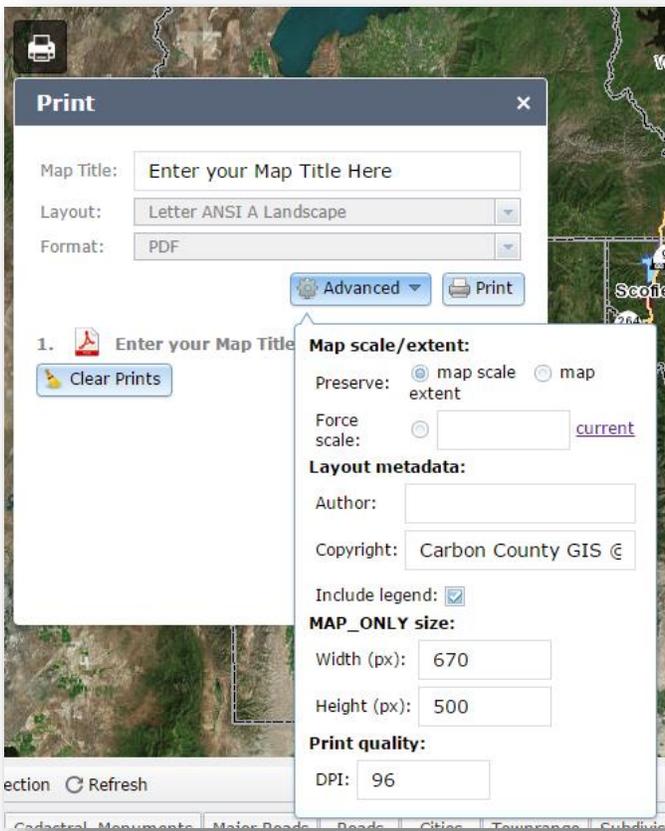
The Print widget can be simple or more complex. When you first click on the widget, it is very simple.

1. Change the title of the map, select the layout, and format, and then click Print.
2. There will be a status bar that pops up and shows the output being created. When it is finished, click on the title you just entered and the map will open in the format you indicated.



## Advanced Print

Advanced print has many more options:



- You can choose to preserve the: map scale and map extent. You can force the scale of the map or specify your desired scale.
- You can type an Author and Copyright information.
- You can specify the width/height of the map.
- You can specify the print quality in DPI.



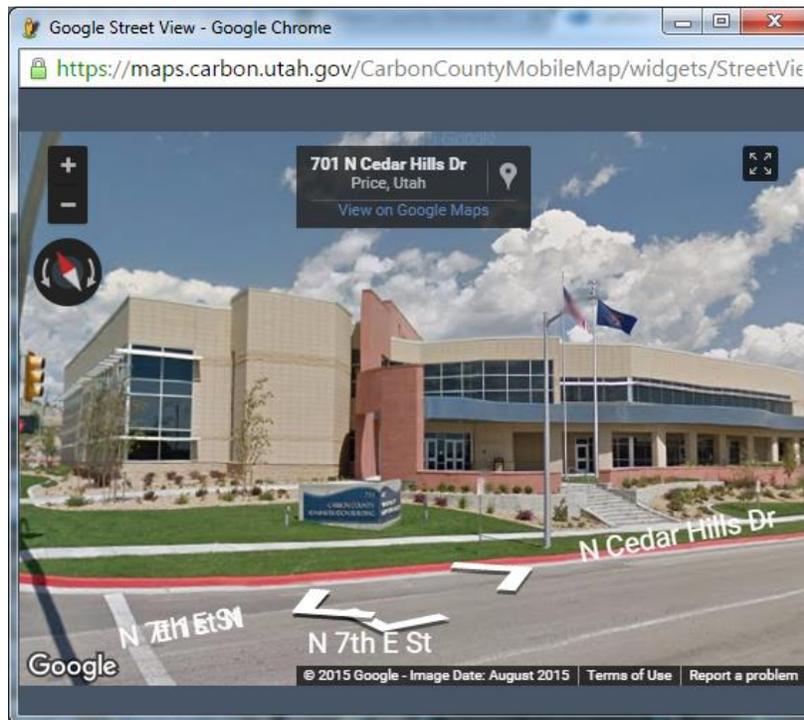
## Google Street View

You may be familiar with Google Maps. To use this widget, drag the yellow man in the green circle to any street in the county.

This picture was taken before the county administration building was constructed.



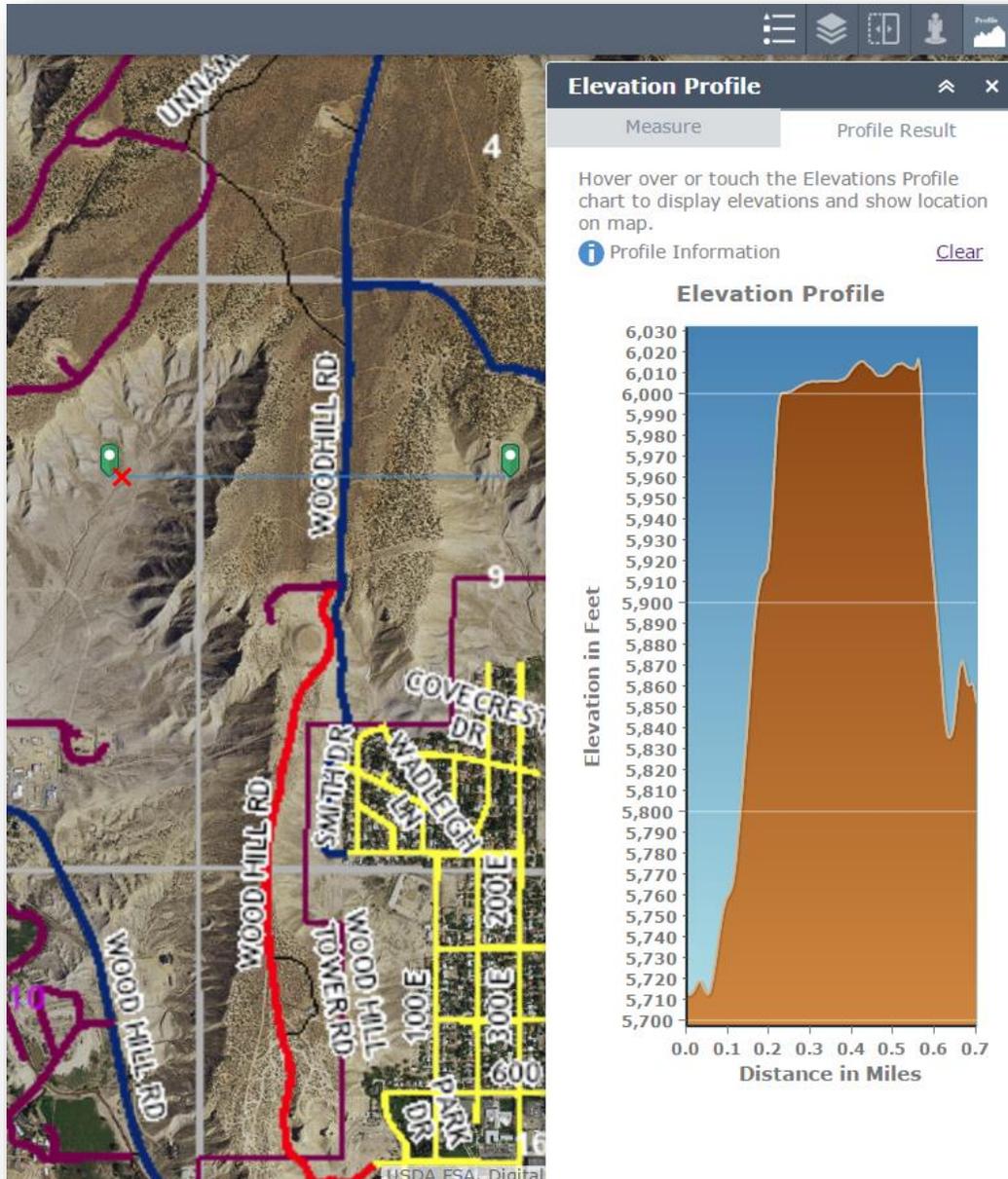
However, when you click one time to the East, the county administration building appears.





## Elevation Profile

Much like the measure tool, just click on the icon, choose the units of measure, then click on anywhere on the map to start the line, move the mouse, and then double-click to end the line. Instantly, the Elevation Profile will be calculated and will pop up in the Profile Result window. As you move your cursor anywhere on the elevation profile, a red "X" will appear on the line in the map to show where it corresponds with.





## Works Cited

*Navigate the map.* (2015, December). Retrieved from ArcGIS for Developers:  
<https://developers.arcgis.com/net/desktop/guide/navigate-the-map.htm>

Scheitlin, R. (2015, December 15). *GeoNet: Roberts Custom WAB Widgets*. Retrieved from ESRI:  
<https://geonet.esri.com/thread/119278>