Week 4 Assignment: Editing Basics in ArcGIS Pro

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In this week's assignment, we begin to explore the operations that a user can perform in order to create and modify features and geodata. There is a tutorial online (Editing Basics in ArcGIS Pro, n.d.) to help us do this. There are two sections of the tutorial: one is focused on creating a feature based on un-editable map data, and the other is focused on editing this feature (and others). The story of the tutorial is that there is a vacant lot on a map where a developer would like to put a building. The tutorial explains how to create a building feature in this way. Additionally, the building will need water and this will require some editing of the water features which are already present on the map. Let's begin!

Create New Features and Assign Attributes

In the first section of the tutorial, we load in some given data, navigate to the area in question, and begin creating a feature. The feature we are creating is the building on the vacant lot, mentioned previously. After we create the feature, we edit its attribute table to be accurate with the information we have been given. ArcGIS Pro makes these types of operations seem pretty smooth.
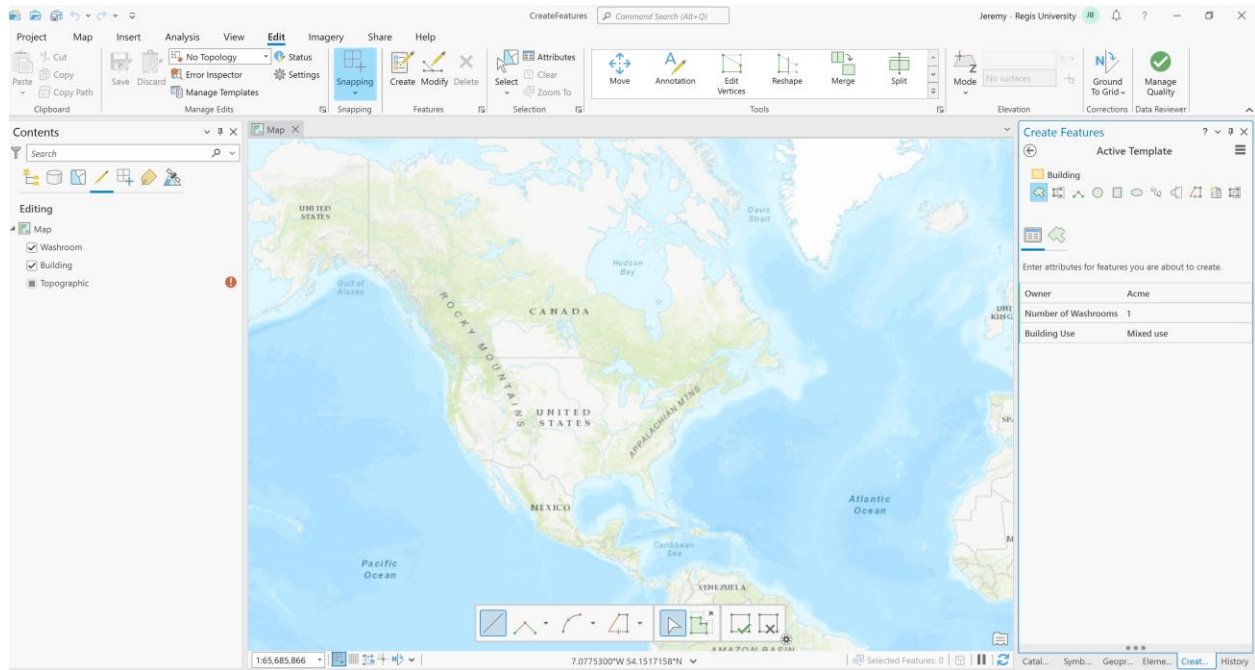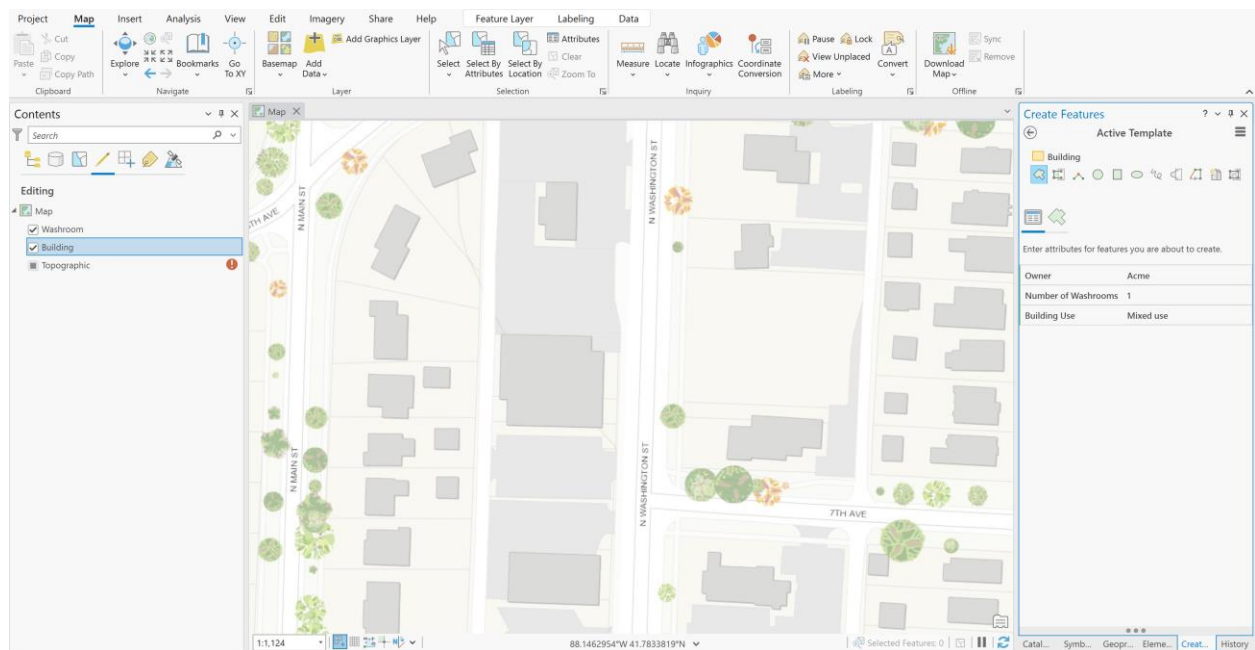
Figure 1: Loading data and creating a feature

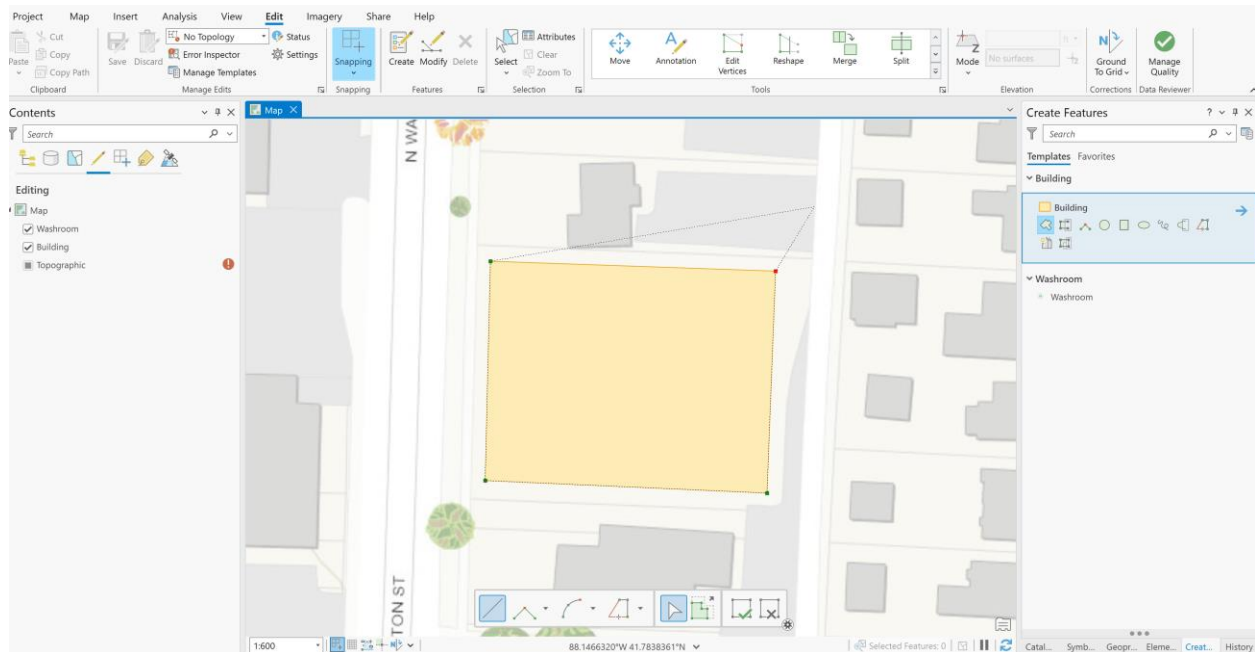Figure 2: After zooming to the 'Building' layer

Figure 3: Creating a polygon over the vacant lot

We can see above in Figures 1 through 3 that in order to create a feature, we simply request to create a feature in a specific layer, and then we specific as many points as necessary to draw the new feature. It is all very user-friendly in ArcGIS Pro. We also specified the attributes synchronously as we created the feature, which helped save time.

In Figures 4 and 5 below, we explore the attributes table for the new building feature to ensure it has the attributes we have specified. Then finally, we save the edits to the specific feature which is different than saving the project. After saving the feature, we then save the project.
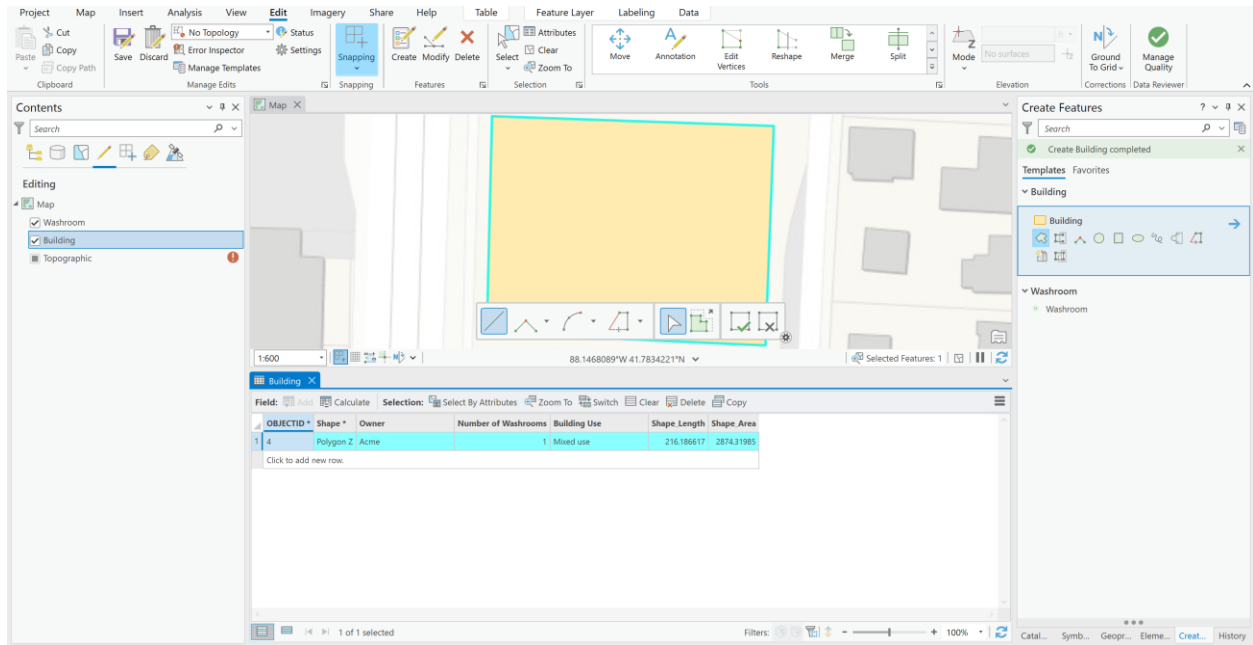
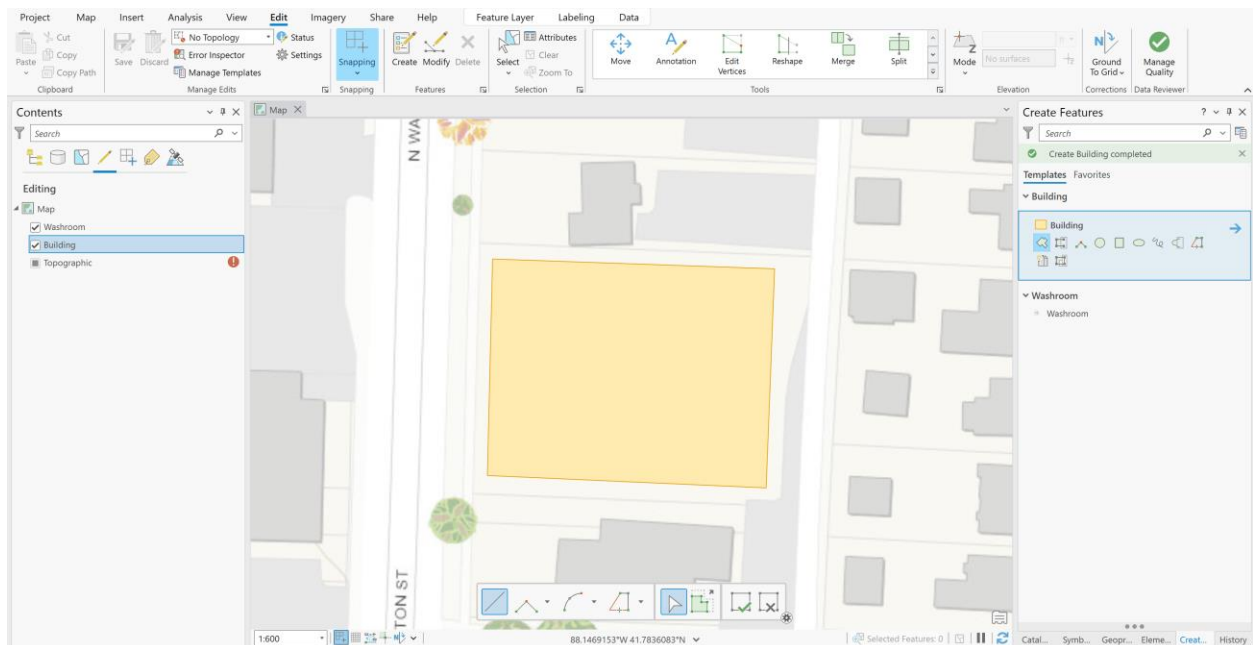Figure 4: Showing the attribute table for the Building feature
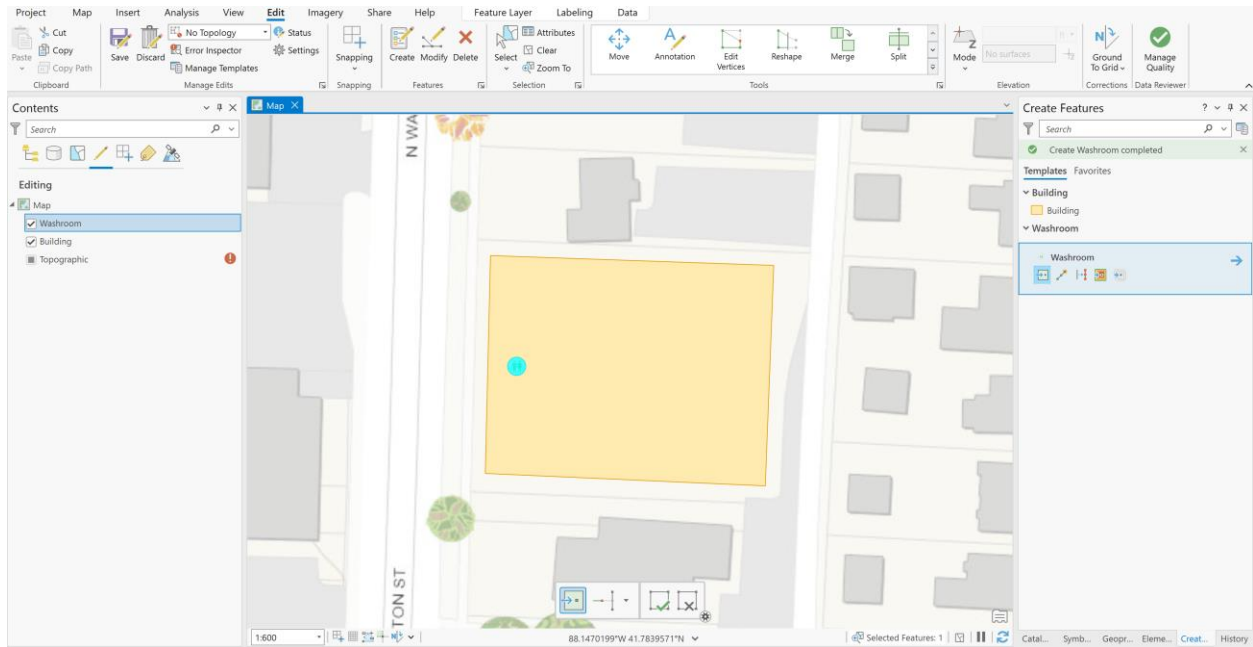

Figure 5: The finished polygon

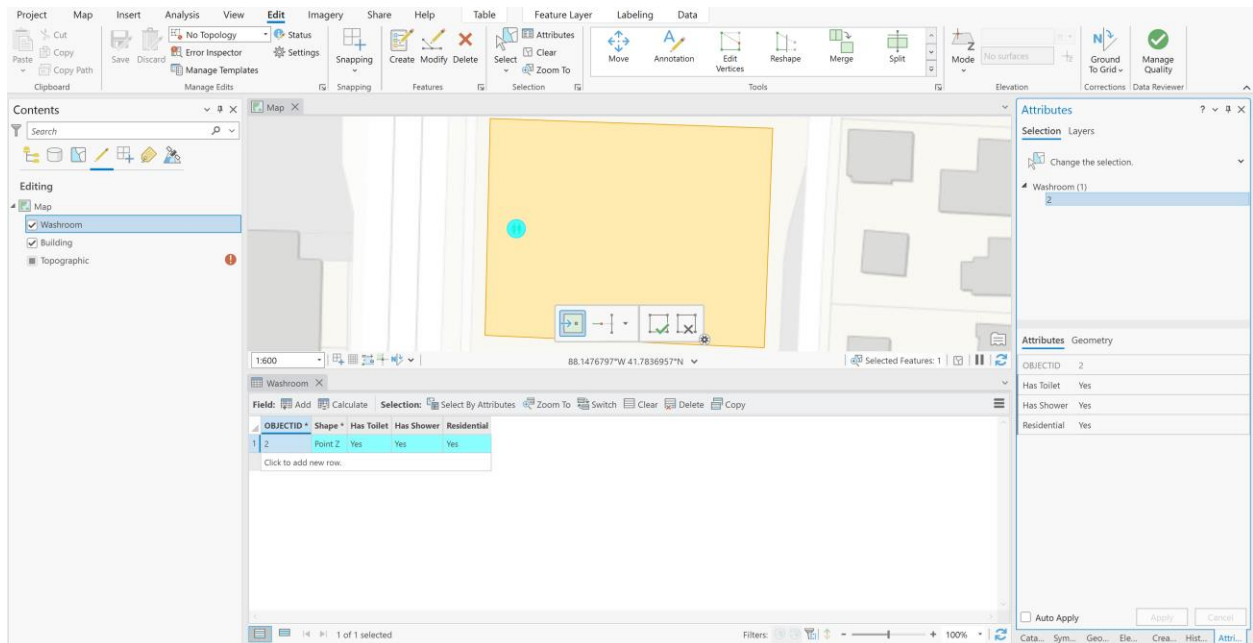Figure 6: After creating a Point feature

Figure 7: Setting Washroom Attributes

In Figures 6 and 7 above, we place a point on the map to specify where a washroom should be placed in the building. After placing the washroom point with its specific icon, we then set the point's attributes to note that it is residential, it has a shower, and it has a toilet (I would hope it has a toilet at least!).

Edit Existing Features and Attributes

In the next part of the assignment, we take what we have done in the previous section of the assignment, and we add to it. After the last section, we have a new building feature in a vacant lot, complete with a washroom. Both the building and the washroom have their own attributes. Following that, we will begin to edit the features we have created. We will change the rectangular building to have an extra annex on the side for the washroom by creating additional vertices on the feature. Finally, we will show the water line and water main features and edit them to have an additional line to the washroom.
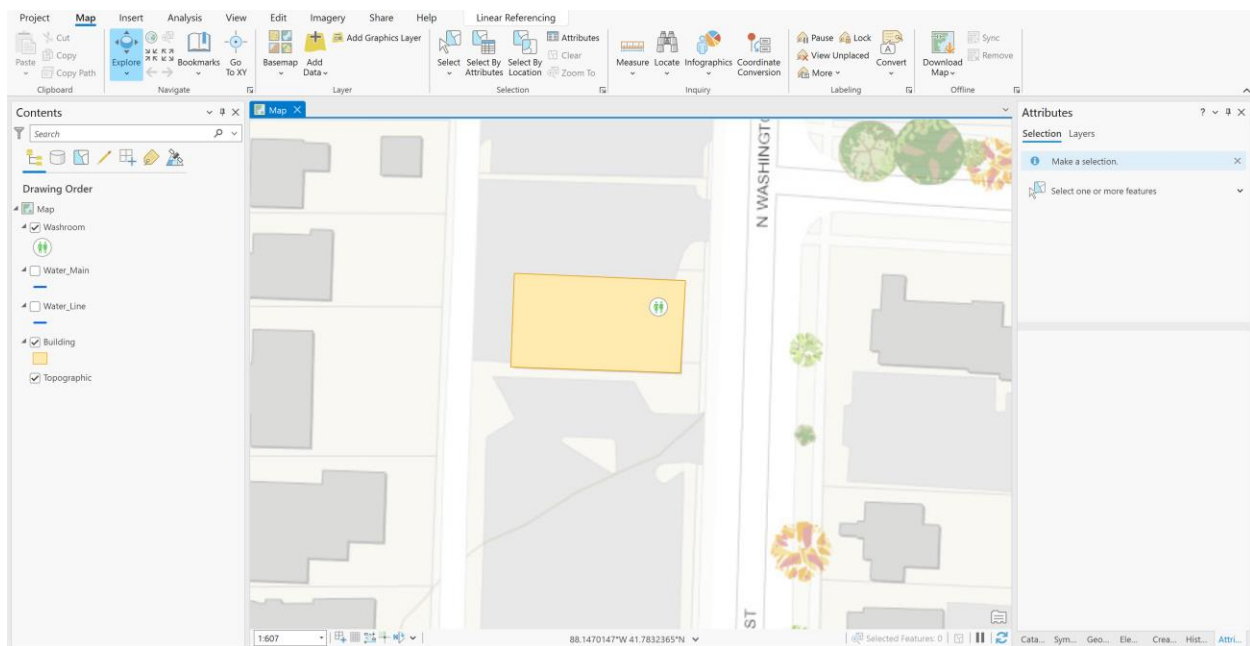
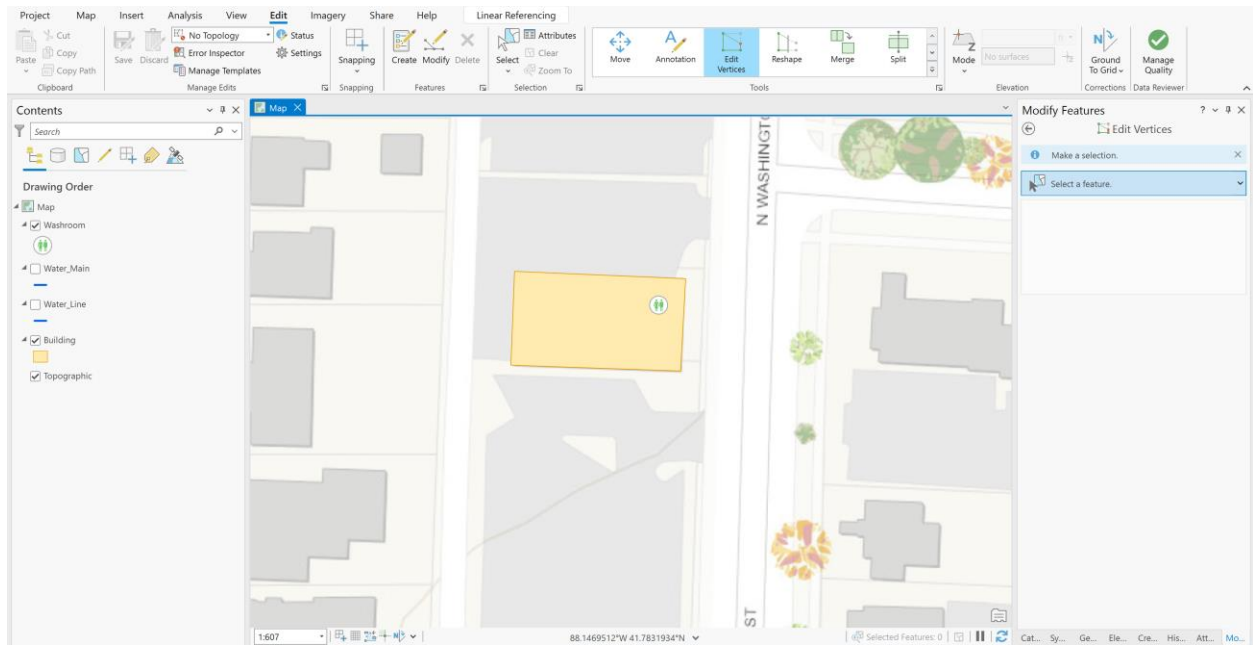Figure 8: Opening the EditFeatures project
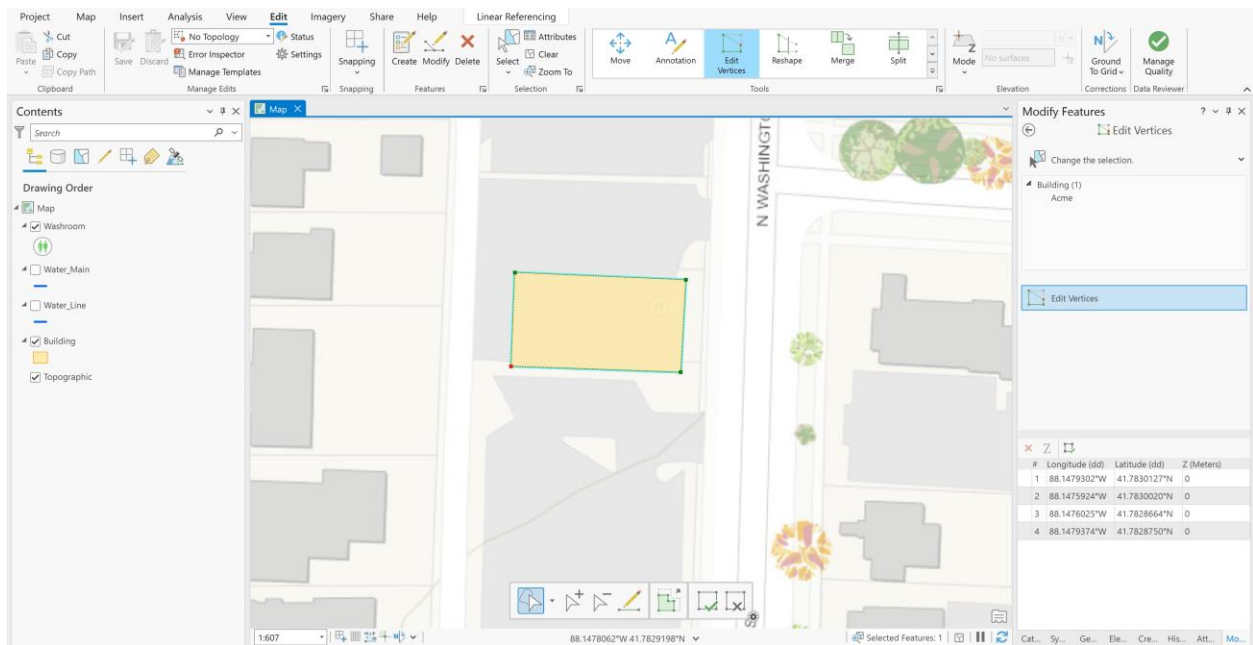
Figure 9: Beginning editing vertices

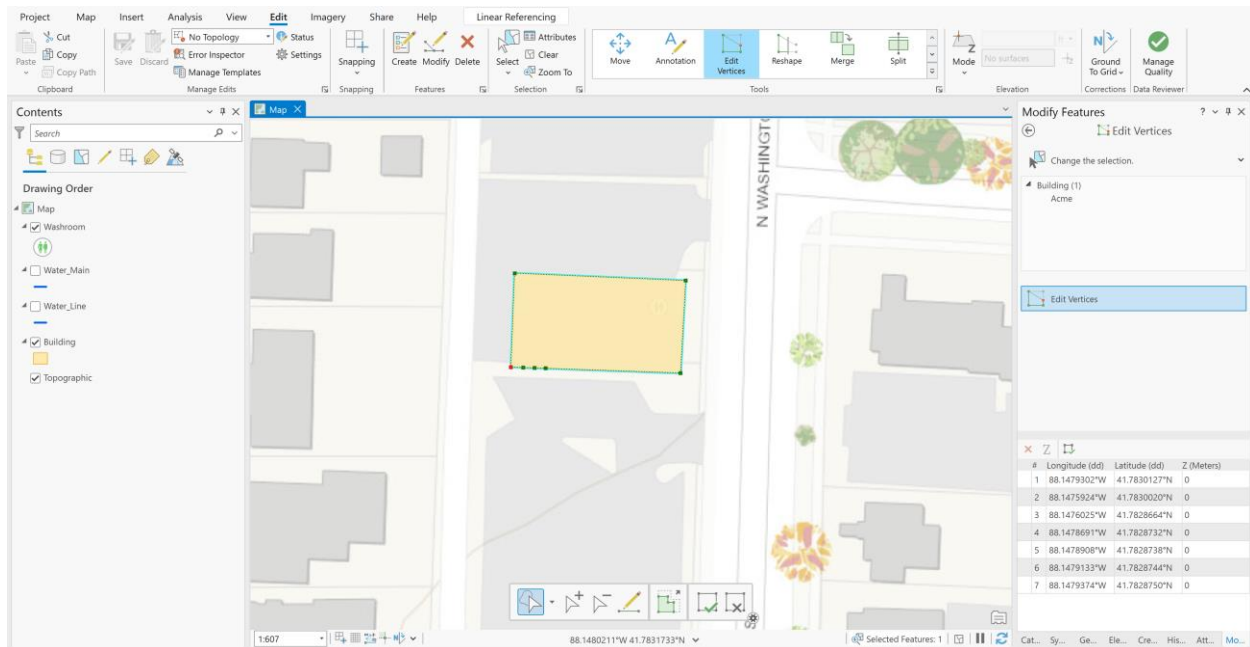Figure 10: Selecting polygon to edit vertices
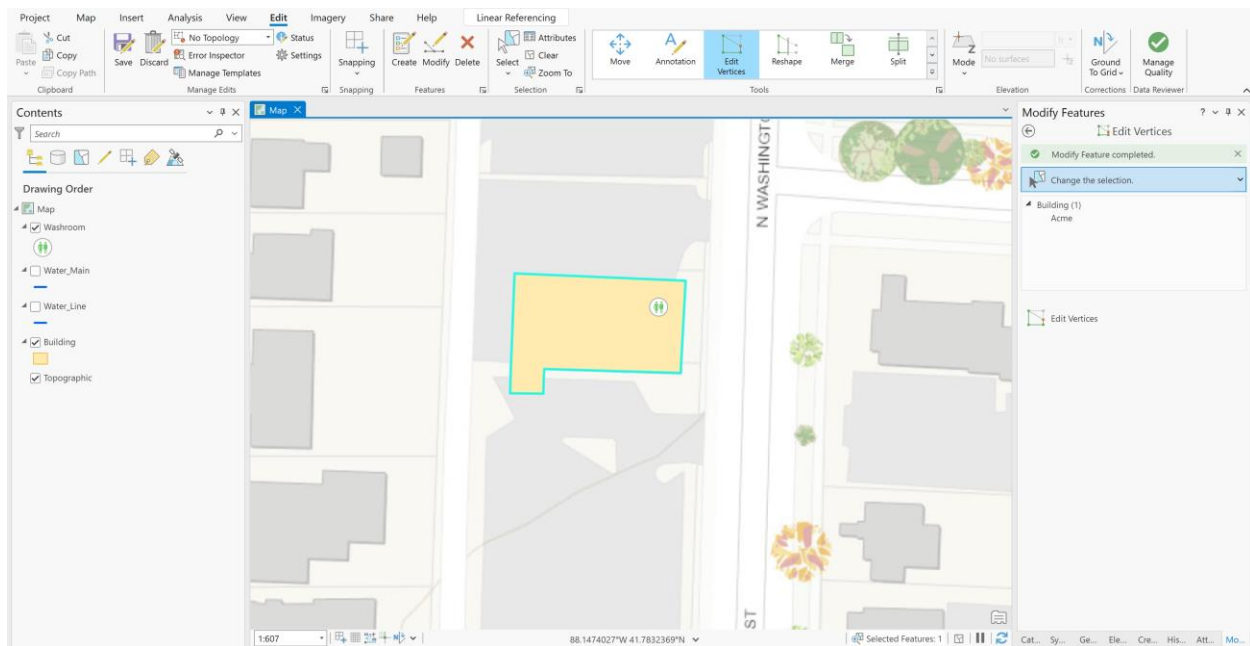
Figure 11: Creating 3 vertices

Figure 12: Finishing editing vertices

In Figures 8 through 12 above, we created three additional vertices on the polygon shape of the building. We then utilize those three points in order to change the physical geometry of the building polygon. This is in order to specify the annex in which the washroom will be located.
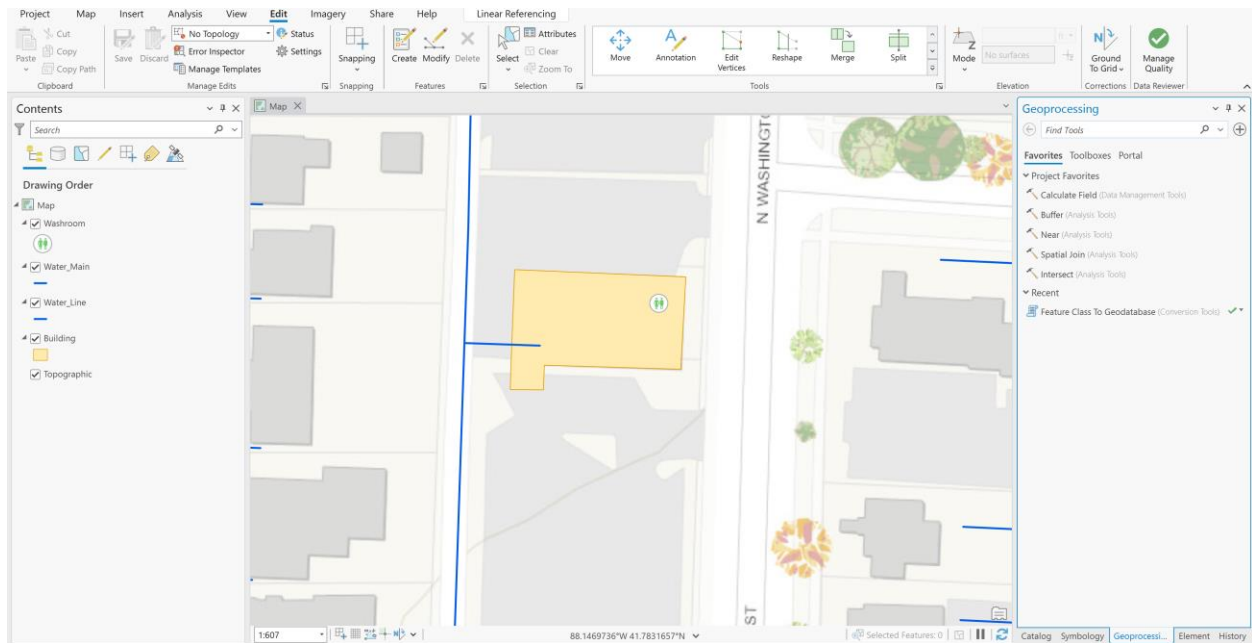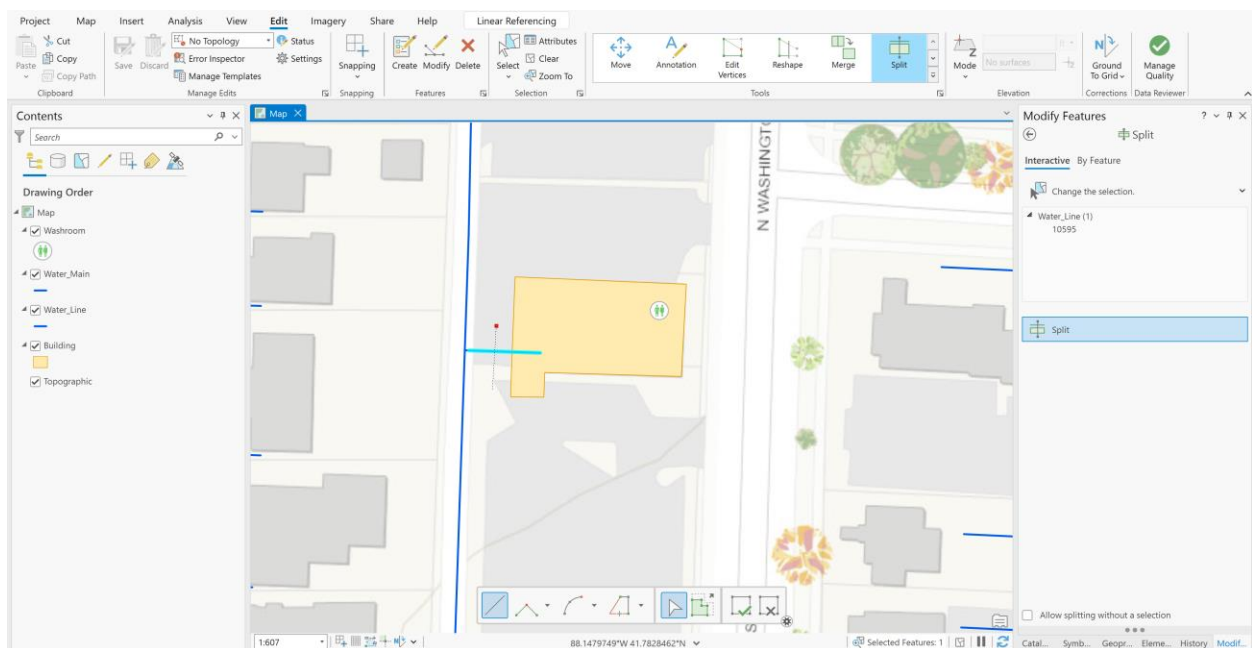

Figure 13: Showing the Water features

Figure 14: Splitting the waterline feature
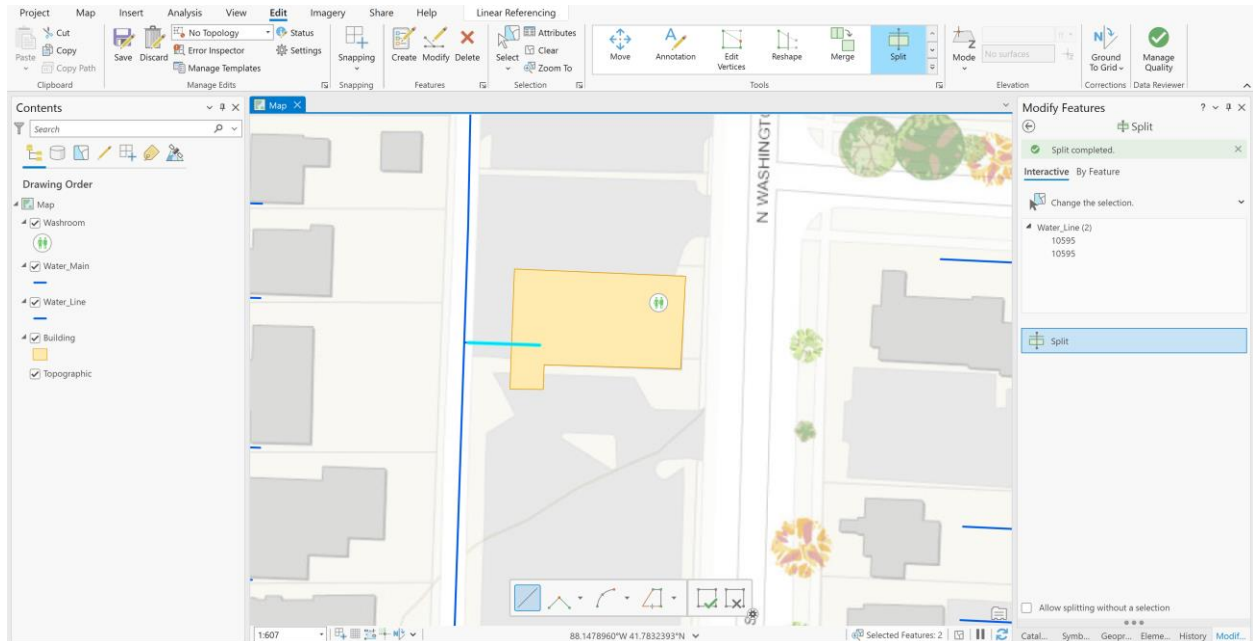
Figure 15: Finished split waterline feature

In Figure 13, 14, and 15 we then begin to explore the water-related features of the data. There is a water main and a water line layer which we show leading into the building. The water line feature needs an additional line to run to the washroom. We start this process by splitting the water line feature into two segments, shown above.
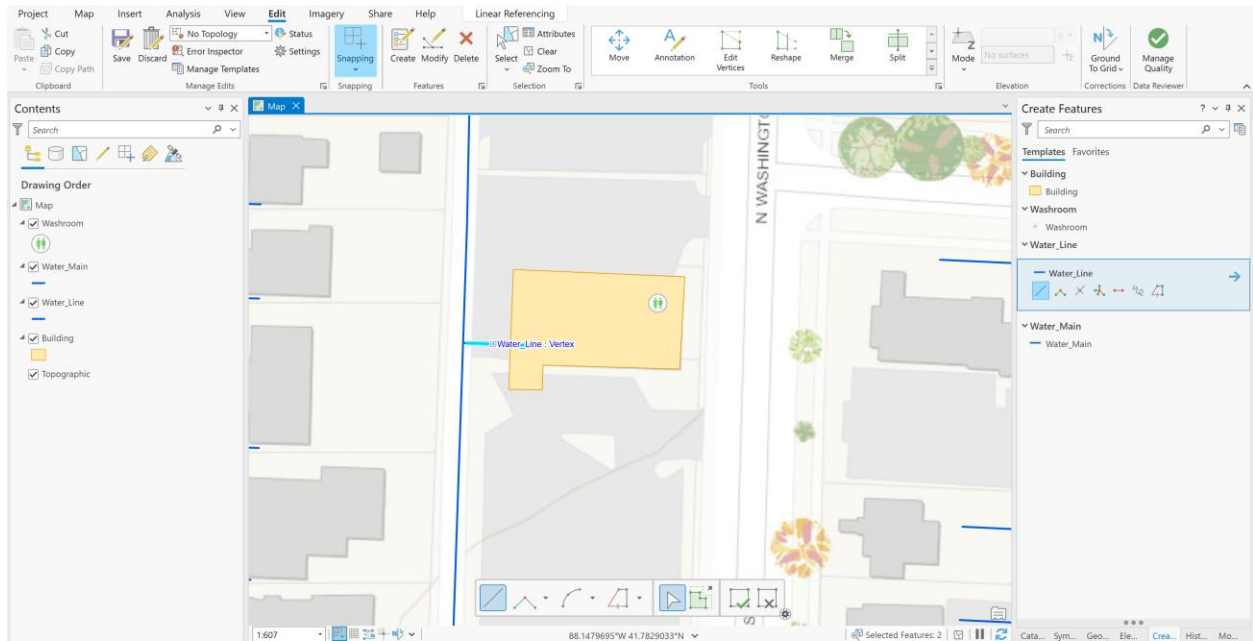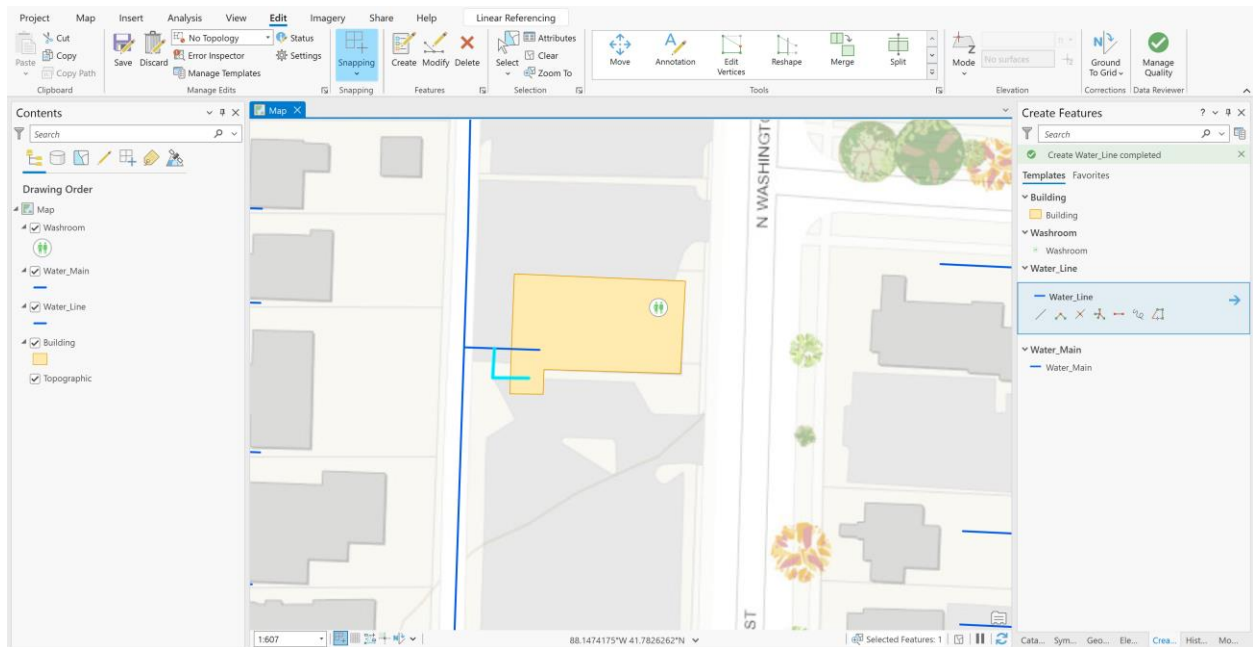
Figure 16: Creating a feature and snapping to the waterline split vertex

Figure 17: Newly created waterline feature
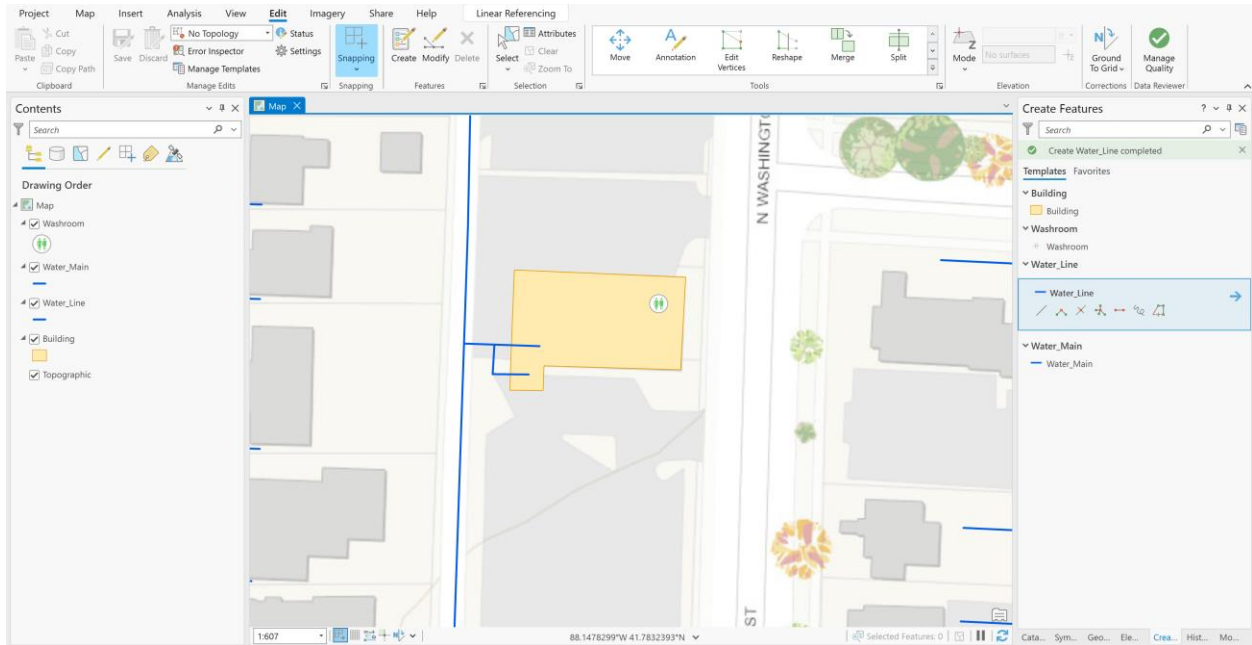
Figure 18: Saving edits and saving the project

In Figure 16, 17, and 18 we finally create the new water line leading to the washroom.

Following the split of the water line feature previously, we can easily snap to the split vertex and

draw lines from it. We draw a line to specify this new water line feature.
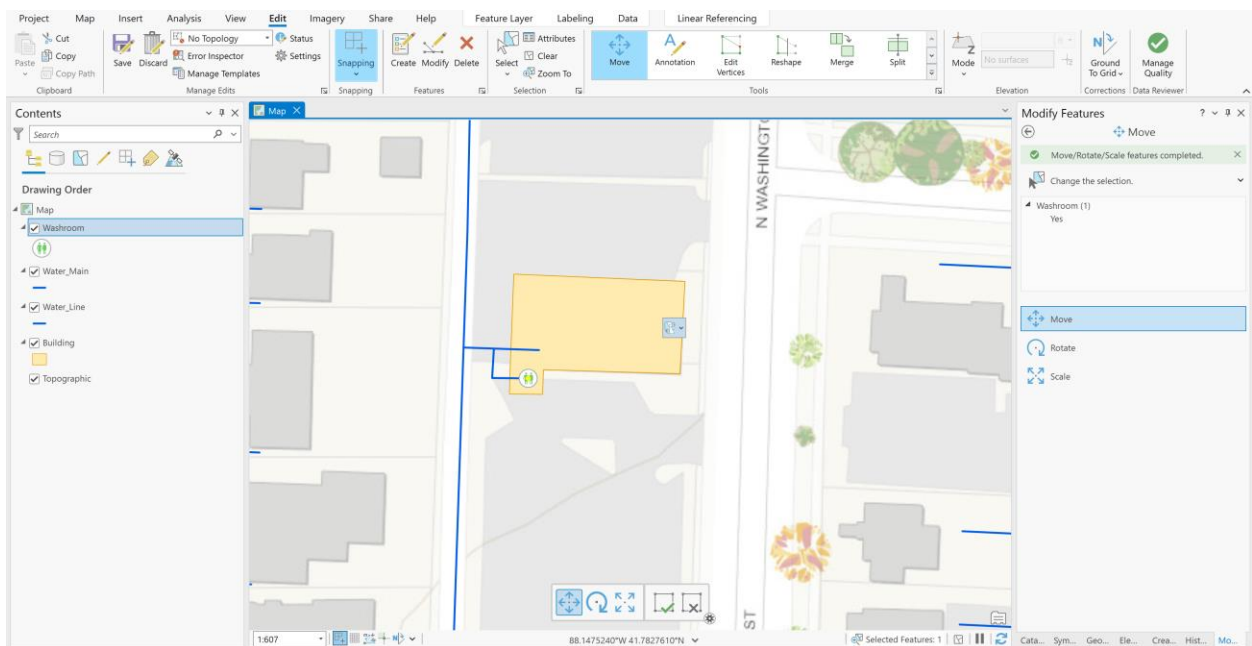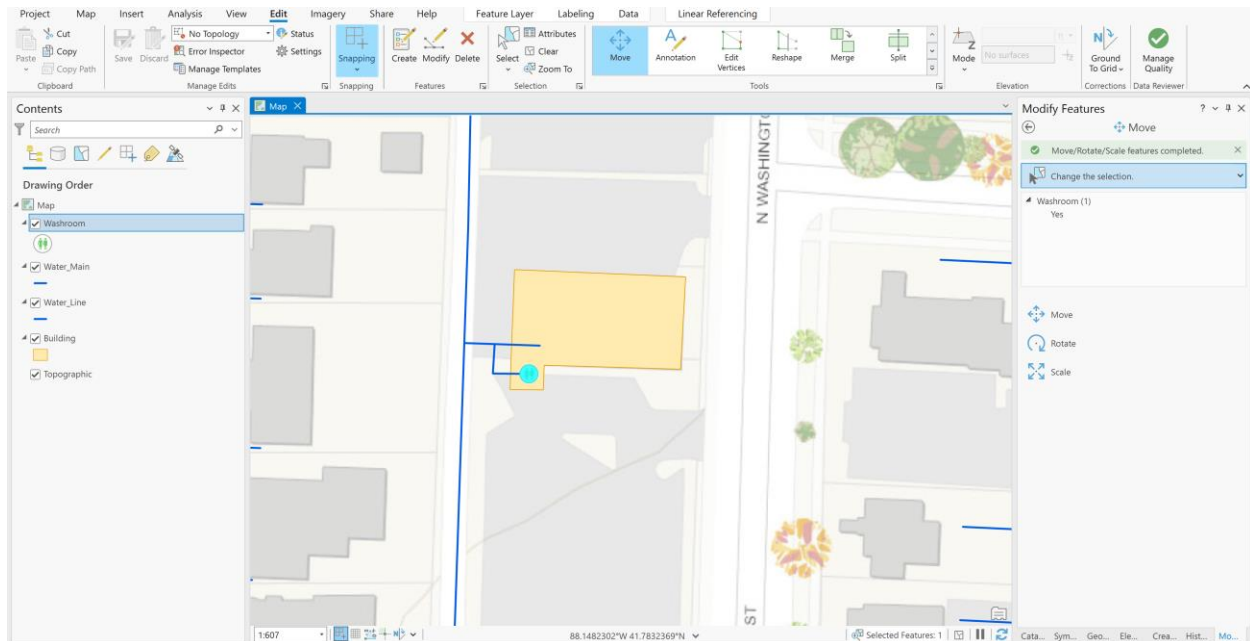
Figure 19: Moving the Washroom location to the new waterline
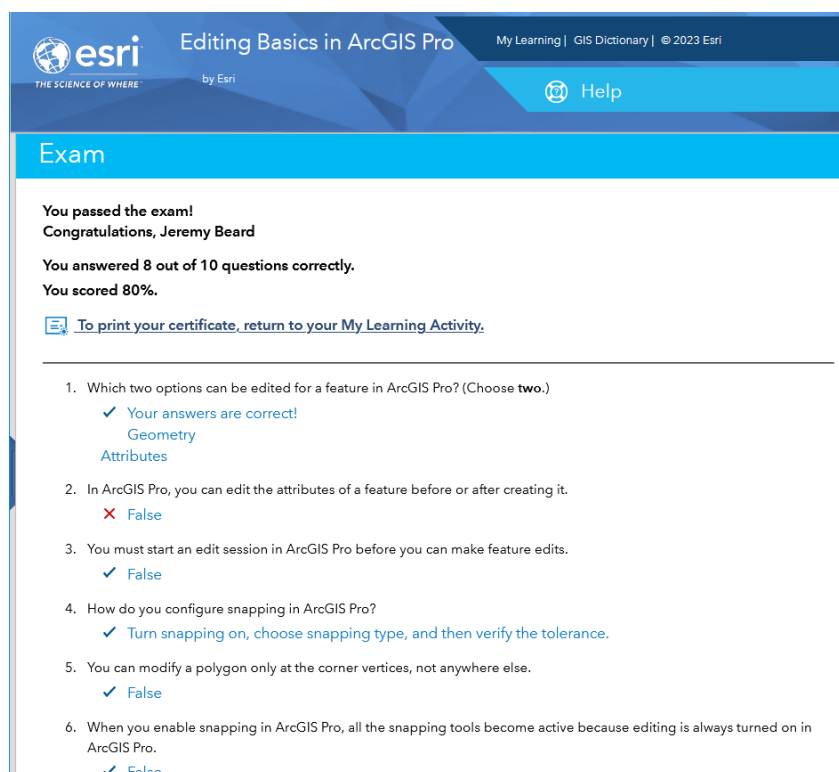

Figure 20: Final product

And voila! In Figures 19 and 20 we have moved the washroom icon to its proper

location, with the new water line properly located. Everything looks good!

Figure 21: Concluding review
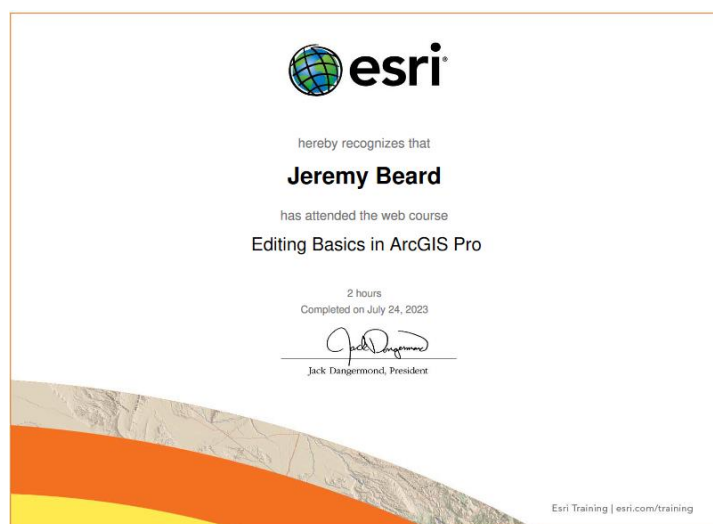
Figure 22: Passing exam

Figure 22: Tutorial Certificate

Conclusion

  This tutorial in ArcGIS Pro taught us the basics in creating and editing features using ArcGIS Pro. We learned how to create a building from nothing and set its attributes. The building was placed on a vacant lot of an un-editable geometry layer. We also learned how to edit a feature's geometry in order to accommodate the need for new information or requests. In this case, a washroom was added to the building and its attributes were edited. Finally, we attempt an exam which tests us on the information we learned during the tutorial. ArcGIS Pro seems to be a very straightforward program at the outset, but I'm sure as we get into the weeds it will start to become more complicated. I'm ready for it! Thank you.

References

Editing Basics in ArcGIS Pro. (n.d.). ESRI. Retrieved July 23, 2023, from

https://www.esri.com/training/catalog/5a9f11d1c5c7c34872fcc218/editing-basics-in-

arcgis-pro/