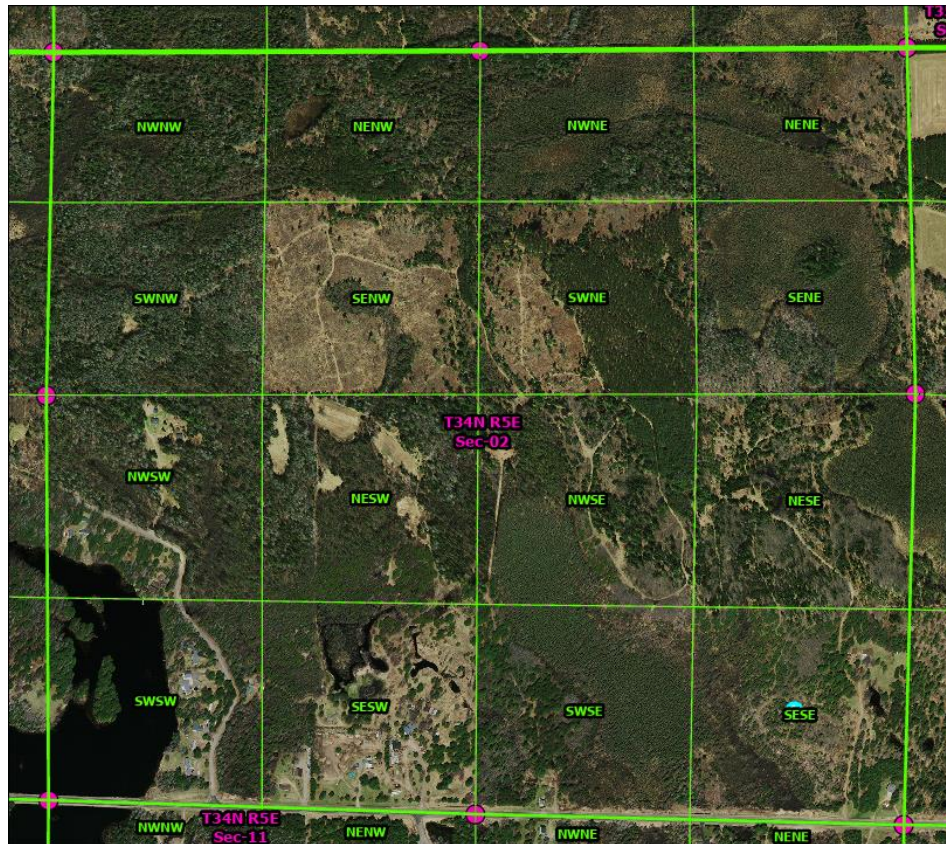
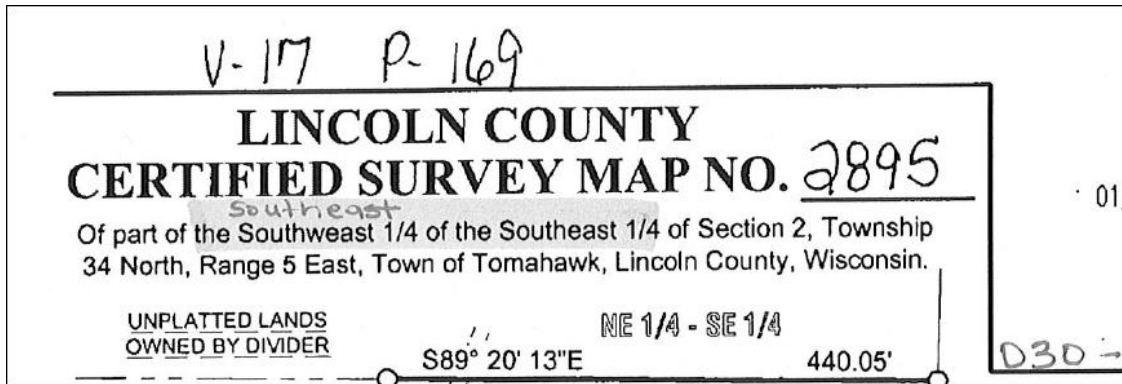
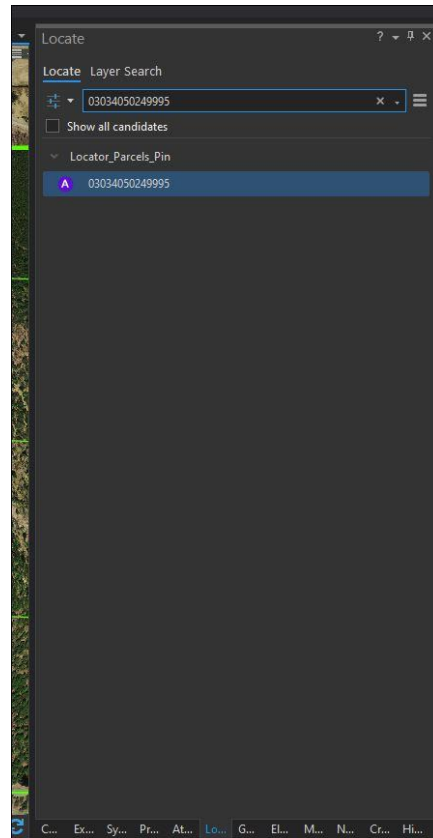
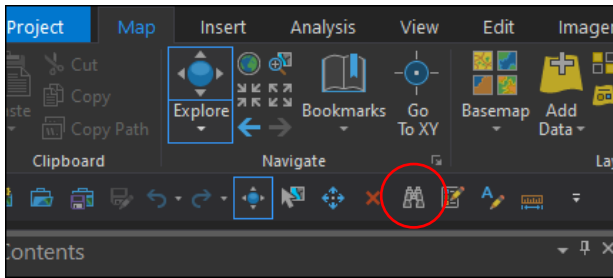


Parcel Mapping Addendum

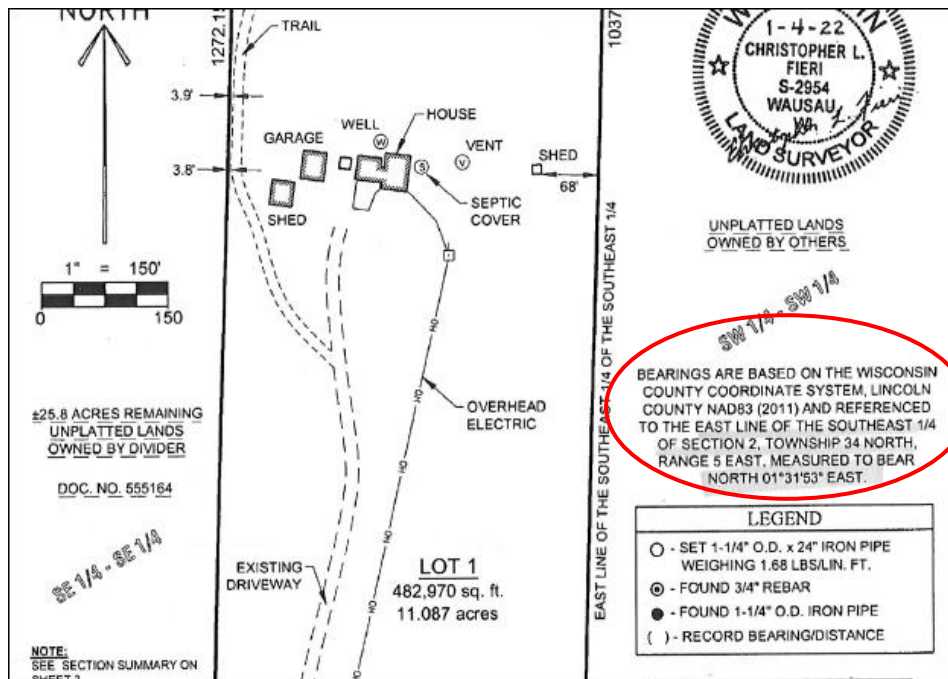
1. New parcel printout delivered by the real property lister.
2. Parent parcels are parcels to be retired, child parcels are active parcels to be mapped.
3. Look up parcels in land records online
<https://ascent.co.lincoln.wi.us/LandRecords/PropertyListing/RealEstateTaxParcel#/Search>
4. Zoom to the location of the survey, as found on land records legal description or document legal description. Or search on parent parcel PIN using locate tool.



Locate Tool-

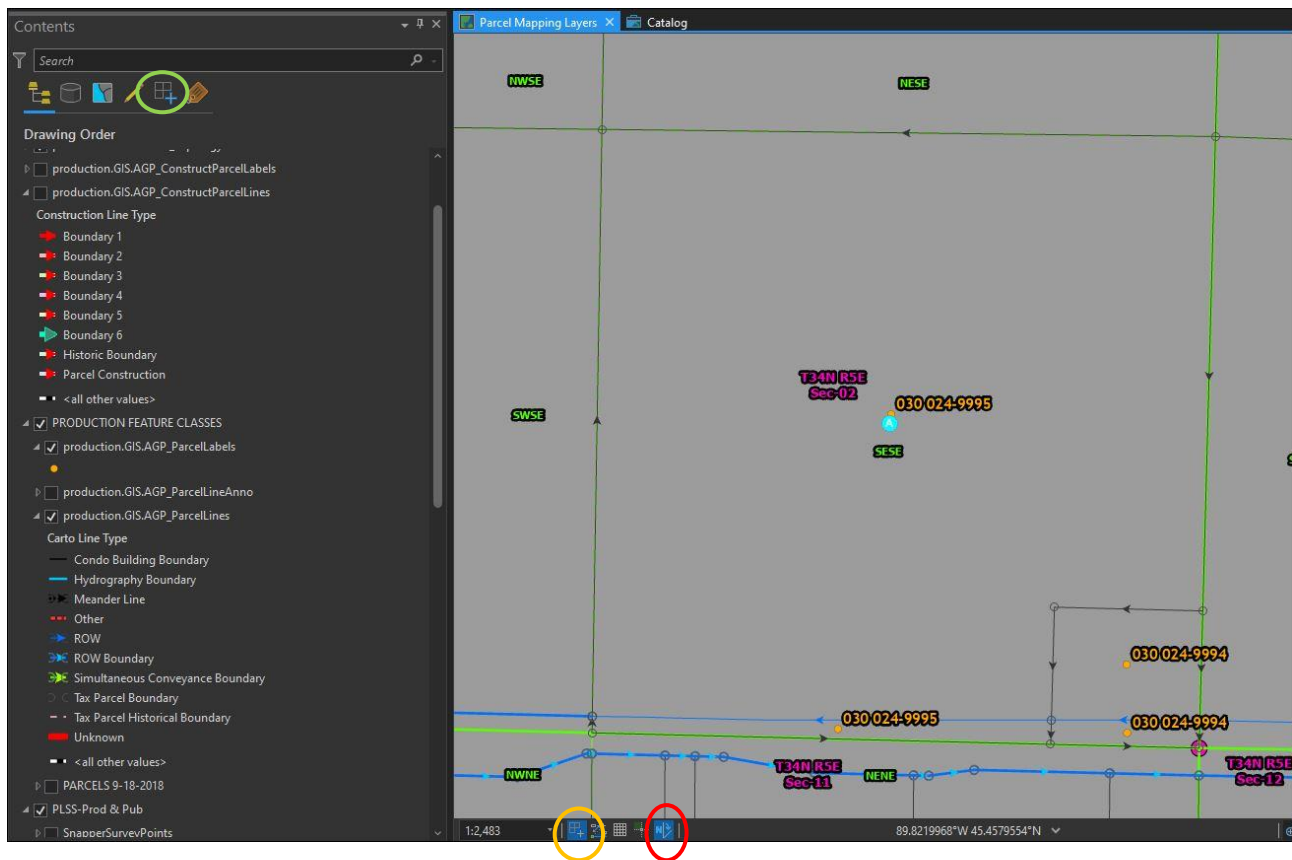


5. Locate ground to grid information on the plat. Often found near the North Arrow or in Notes.

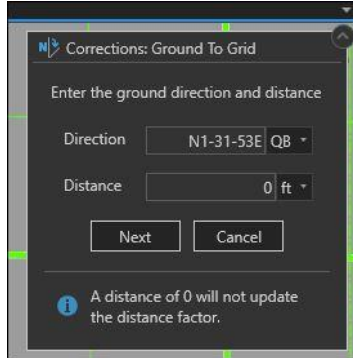
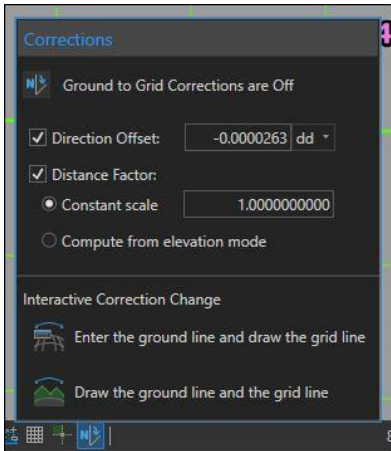


6. Set the ground to grid correction using information on plat.

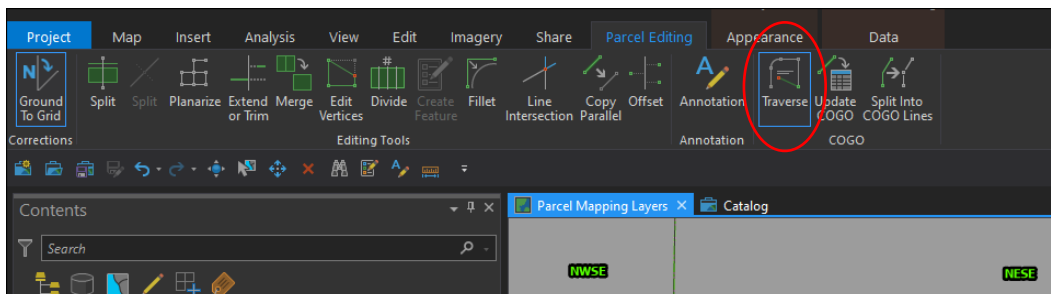
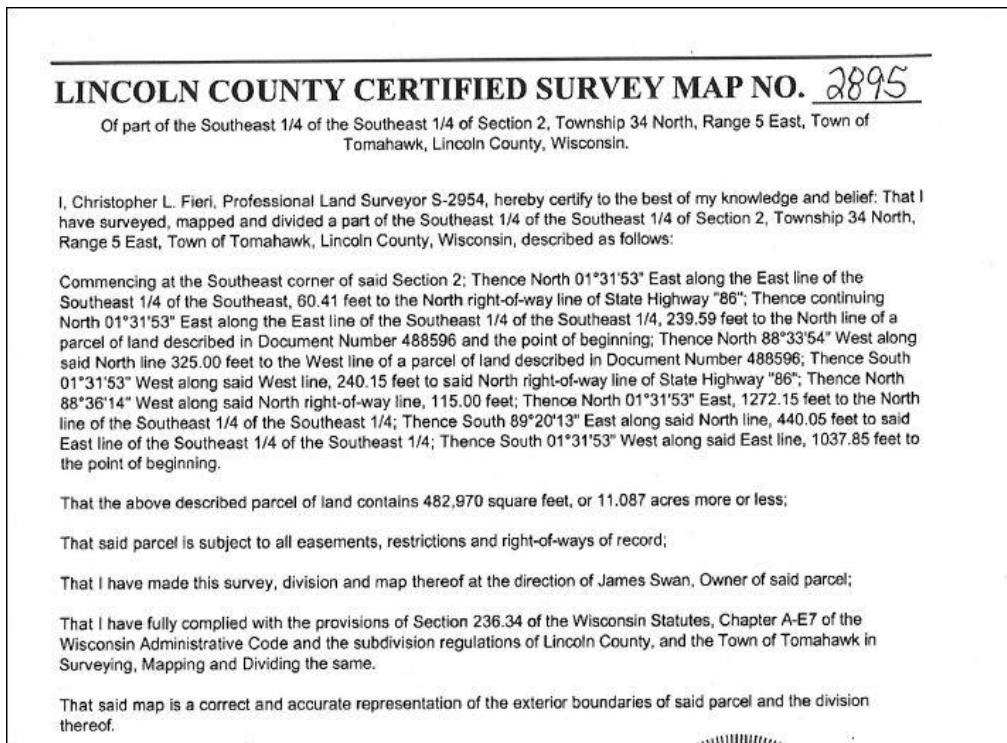
- Hover over G2G symbol on the bottom of the screen to see the “Corrections” info (circled in red). Click symbol to turn on/off, it will be highlighted when “on”. When hovering select “Enter the ground line and draw the grid line” to input bearing and distance. Before inputting bearing and distance, click on the snapping logo and make sure snapping is on (Snapping button circled below in yellow). Snapping for a layer can be turned on or off in the contents pane, “Snapping” tab (shown circled in green). You will want to make sure snapping is on for “PLSS Corners- Publication”.

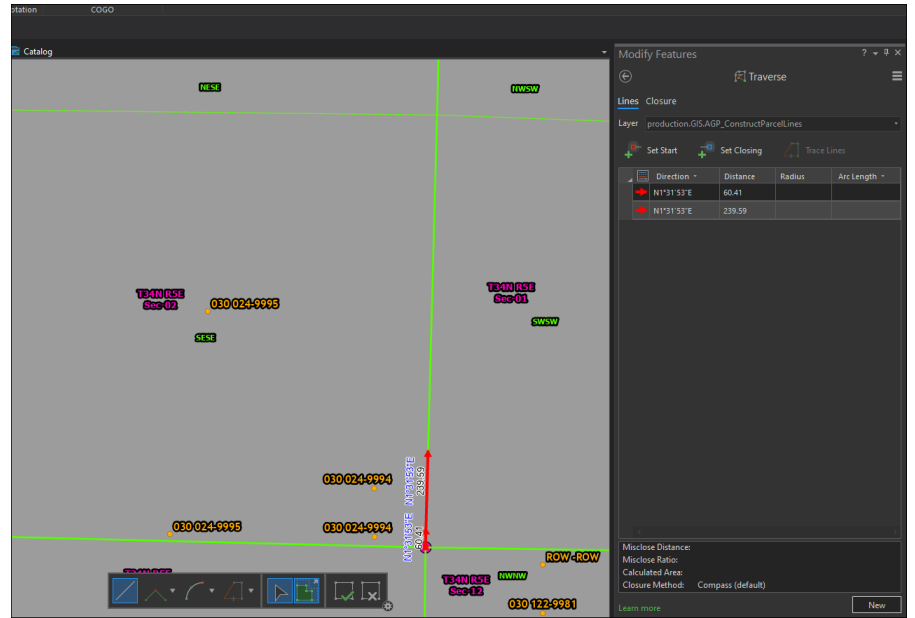


Type bearing from plat into direction>Next>Draw Grid Line, by snapping to starting and ending PLSS Corner in the direction described on the plat. Once set the Ground to Grid box will go away, and Direction Offset can be viewed, by again hovering over the G2G symbol.

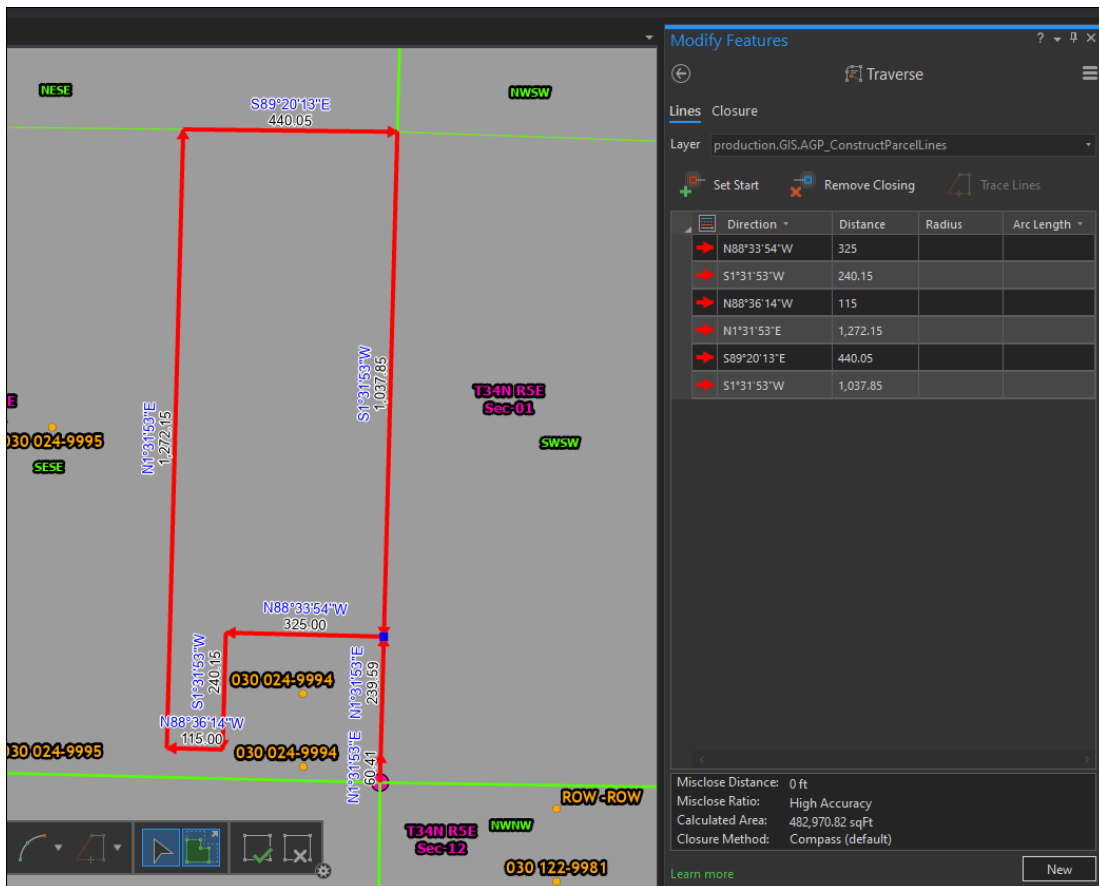


- Use the traverse tool to COGO in the lines from the overall boundary in the plat legal description.





- COGO to Point of Beginning. Then start a new traverse, snapping to your last construction line endpoint as your new “take off point”. Set your Closing as the same construction line endpoint as your start, so that you can close your traverse once done.



- Go into the "Closure" tab to view residual values to ensure that the survey accuracy was high and that the traverse closes. If needed, adjust.

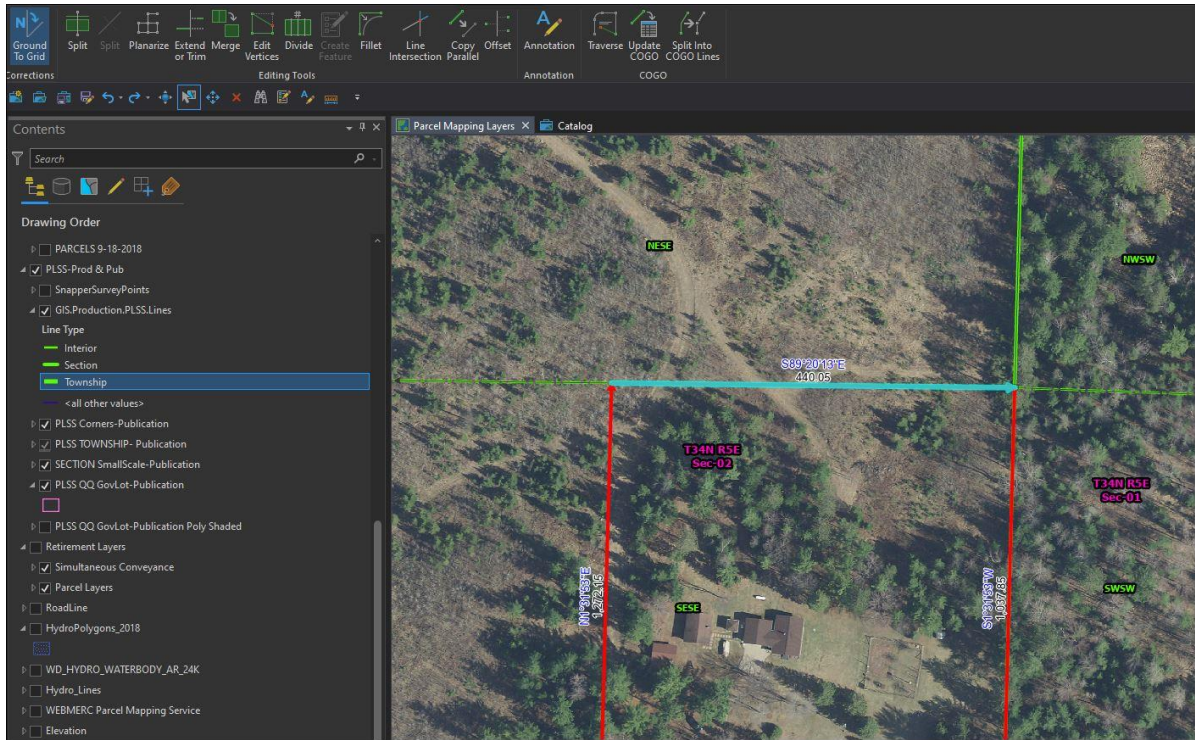
The screenshot displays a surveying software interface. On the left, a traverse diagram is shown with a red outline. The diagram includes bearings and distances for several segments: S89°20'13"E (440.05), N88°33'54"W (325.00), S1°31'53"W (240.15), N88°36'14"W (115.00), N88°33'54"W (325.00), S1°31'53"W (240.15), N1°31'53"E (1,272.15), S89°20'13"E (440.05), N1°31'53"E (1,272.15), S1°31'53"W (1,037.85), N88°36'14"W (115.00), S1°31'53"W (240.15), N88°33'54"W (325.00), N1°31'53"E (1,272.15), S1°31'53"W (240.15), N88°36'14"W (115.00), and S1°31'53"W (1,037.85). The diagram also shows various survey points and features like '30 024-9995', '030 024-9994', '030 122-9981', 'T34N RSE Sec-01', 'T34N RSE Sec-12', 'ROW-ROW', 'SESE', 'NENE', 'NWSW', 'SWSW', and 'NWNW'. The 'Modify Features' panel on the right is open to the 'Closure' tab. It shows a table of adjusted values and residual values for the traverse segments. The 'Adjust' button is circled in red.

Description	Adjusted Values	Residual Values
N88°33'54"W 325.00	N88°33'54"W 325.00	-0.0000093* +0.00
S1°31'53"W 240.15	S1°31'53"W 240.15	+0.0000041* +0.00
N88°36'14"W 115.00	N88°36'14"W 115.00	-0.0000093* +0.00
N1°31'53"E 1,272.15	N1°31'53"E 1,272.15	-0.0000041* 0.00
S89°20'13"E 440.05	S89°20'13"E 440.05	+0.0000092* 0.00
S1°31'53"W 1,037.85	S1°31'53"W 1,037.85	+0.0000041* +0.00

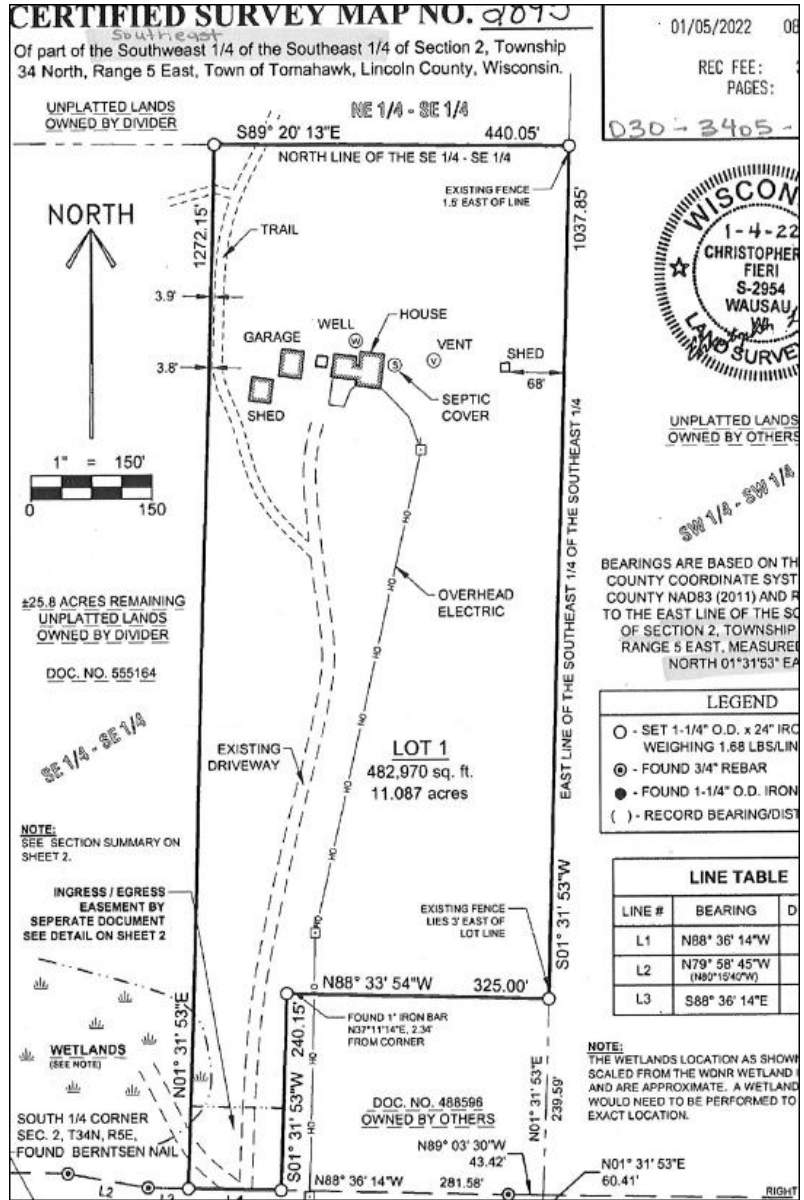
Misclose Distance: 0 ft
Misclose Ratio: High Accuracy
Calculated Area: 482,970.82 sqFt
Closure Method: Compass (default)

Adjust

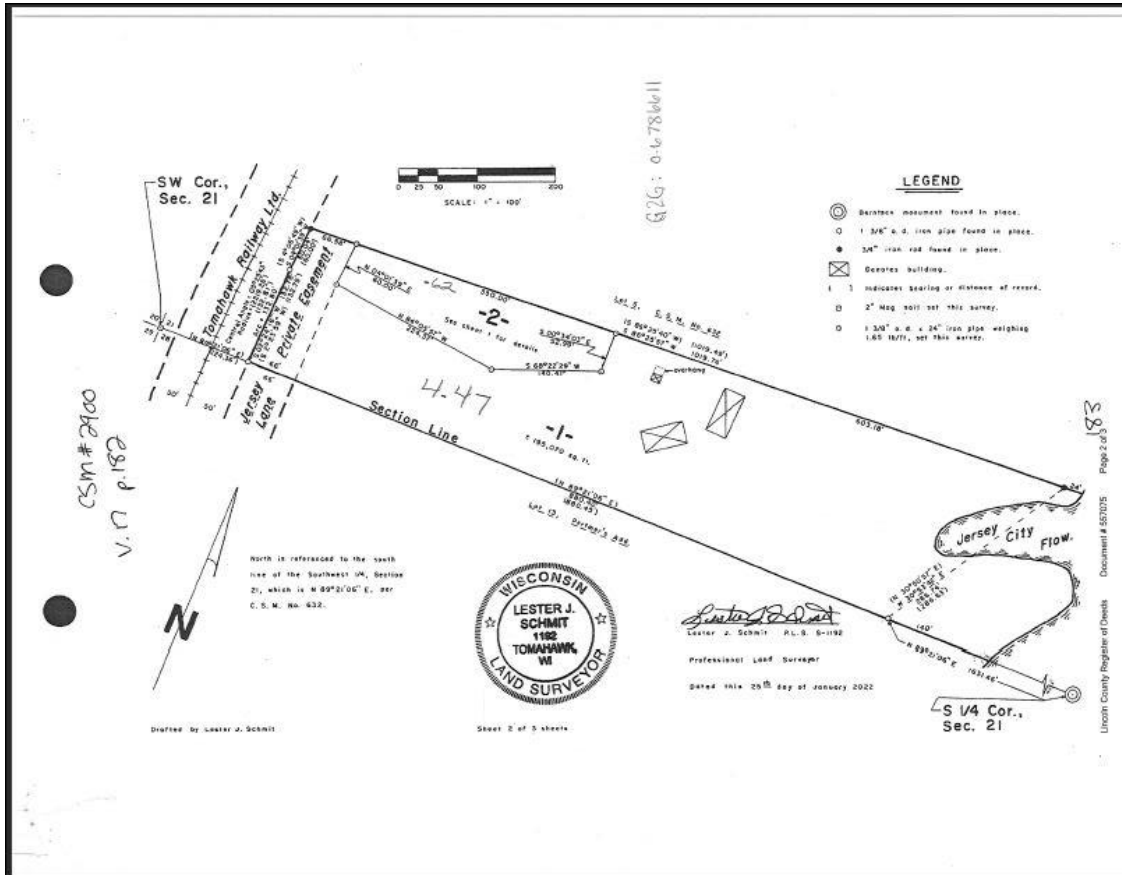
9. Ensure that lines that are coincident with PLSS lines are actually coincident with the PLSS lines. Use the extend/trim/replace geometry/planarize tools to ensure this.



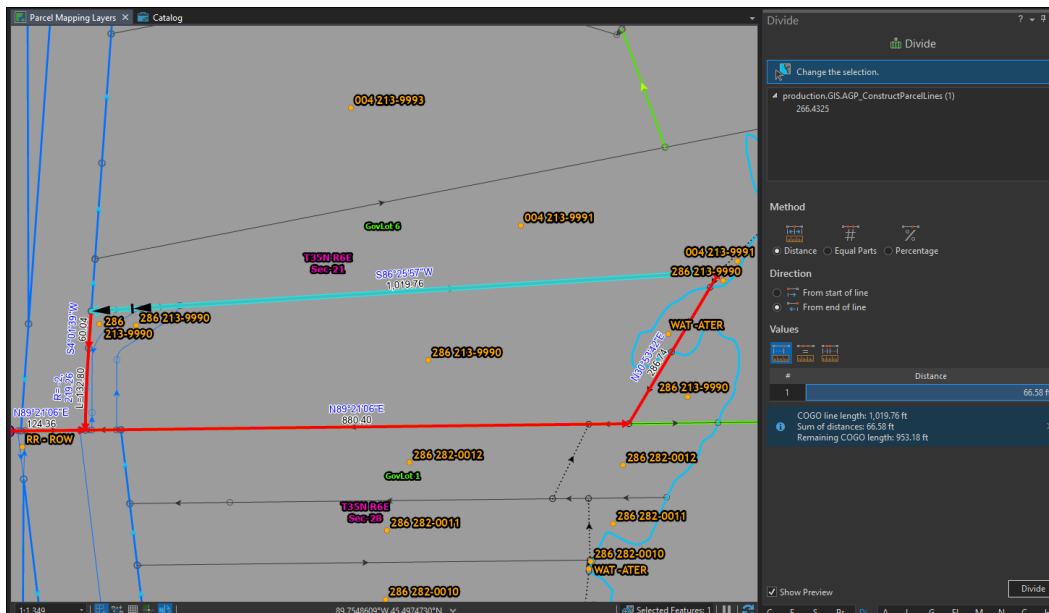
10. Add any interior lot lines/right of way lines/meander lines that were not included in the exterior boundary. This example only has one lot and does not have any other lines than the exterior boundary. In many cases the split tool is used to accomplish this. I will use a different example on the next page to show the process for creating interior lines.



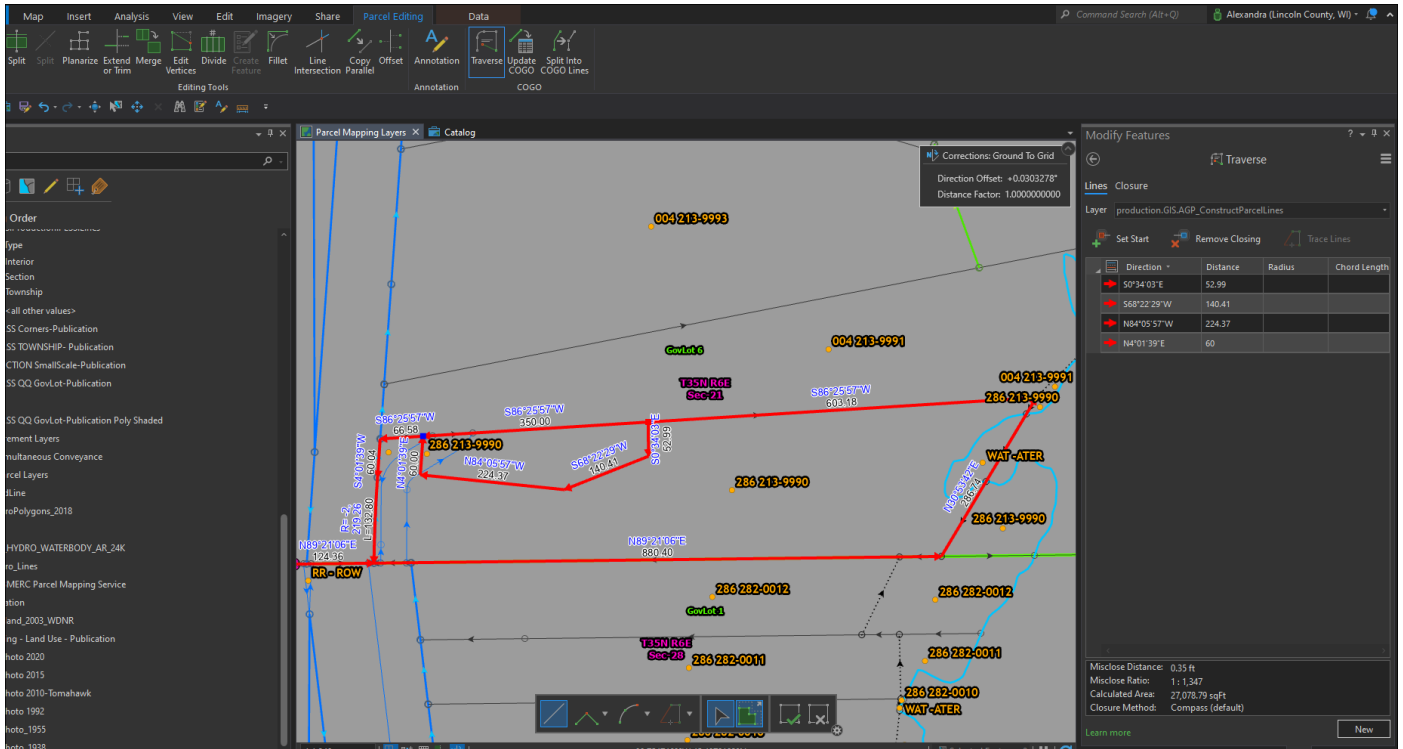
Example- CSM 2900



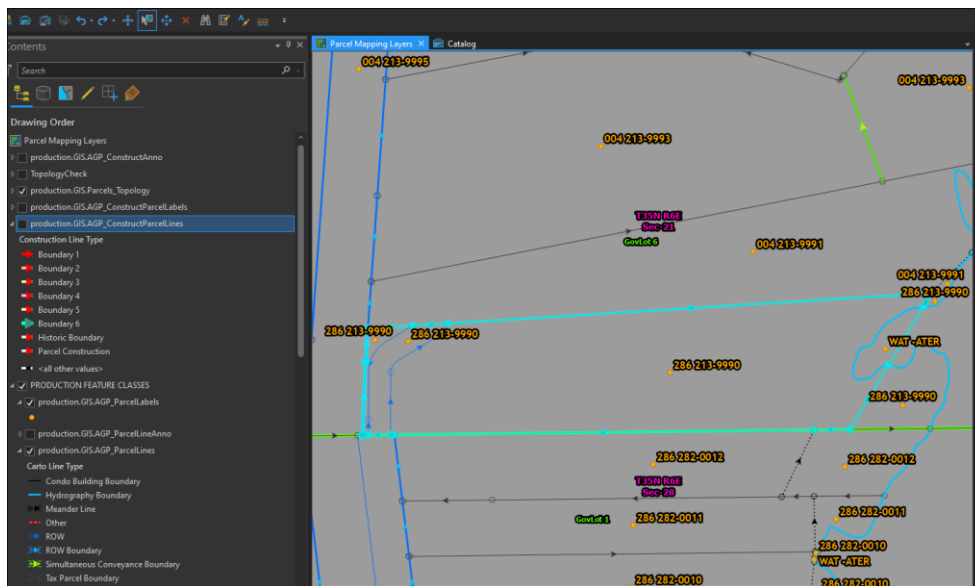
Construction lines have already been COGO-ed in, see example above on COGO/Traverse tool. Select construction line you need, and use “Divide” tool to split line so that you can snap to that line “break” to create your new lines for the interior line work.



Based on this CSM, to create Lot 2 I divided the North line using a distance. The first divide was 66.58ft from the end of the line. The second divide- 603.18ft from the start of the line. Use the traverse tool again to create the interior line. Based on the direction/distances given on the CSM, the starting point will be snapped to the newly created line break to the east and the closing point will be the created line break to the west of that.



11. Now existing line work needs to be removed to allow for the new lines. Temporarily turn off construction lines and select all existing parcel lines that are being "replaced" and delete them.



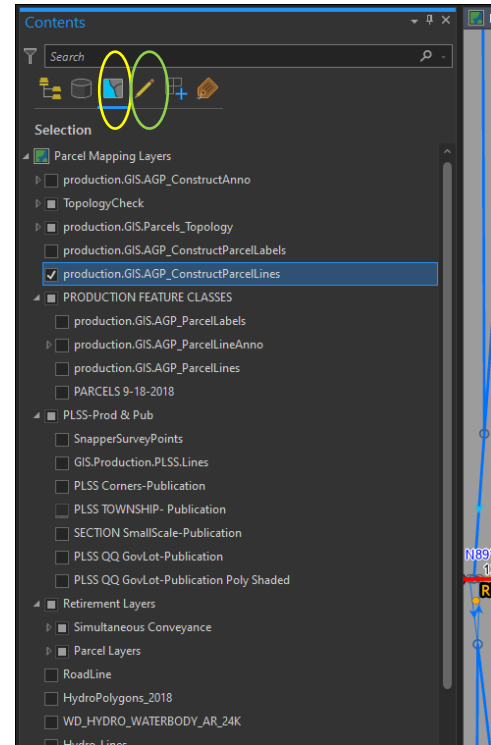
12. Next step is to move Construction Lines into “production.GIS.AGP_Parcellines”.

Turn Construction back on.

Make only Construction Lines selectable and editable, so you don’t grab features that should not be moved.

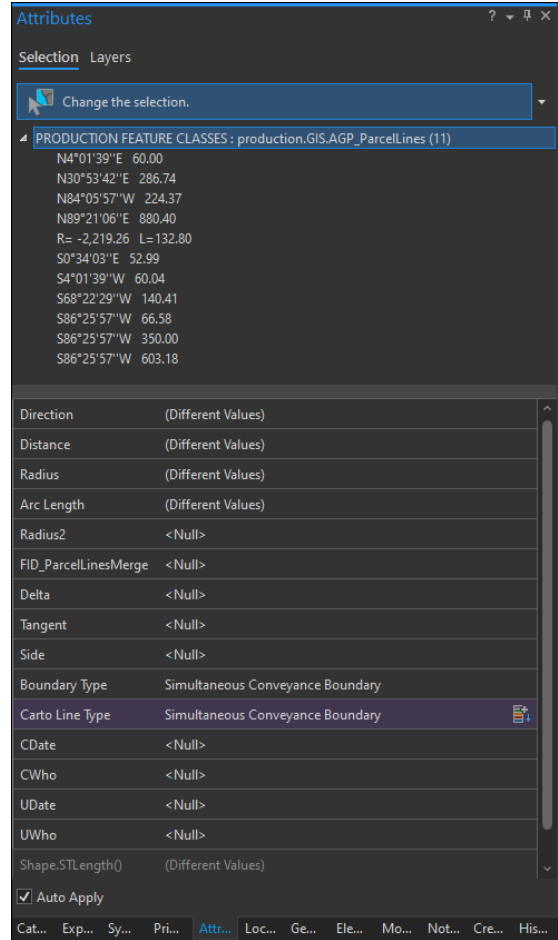
Click on Selection tab in Contents pane (circled in yellow), select

“production.GIS.AGP_ConstructParcelLines”, right click, make this only selectable layer. Do the same in Editing tab (circled in green).

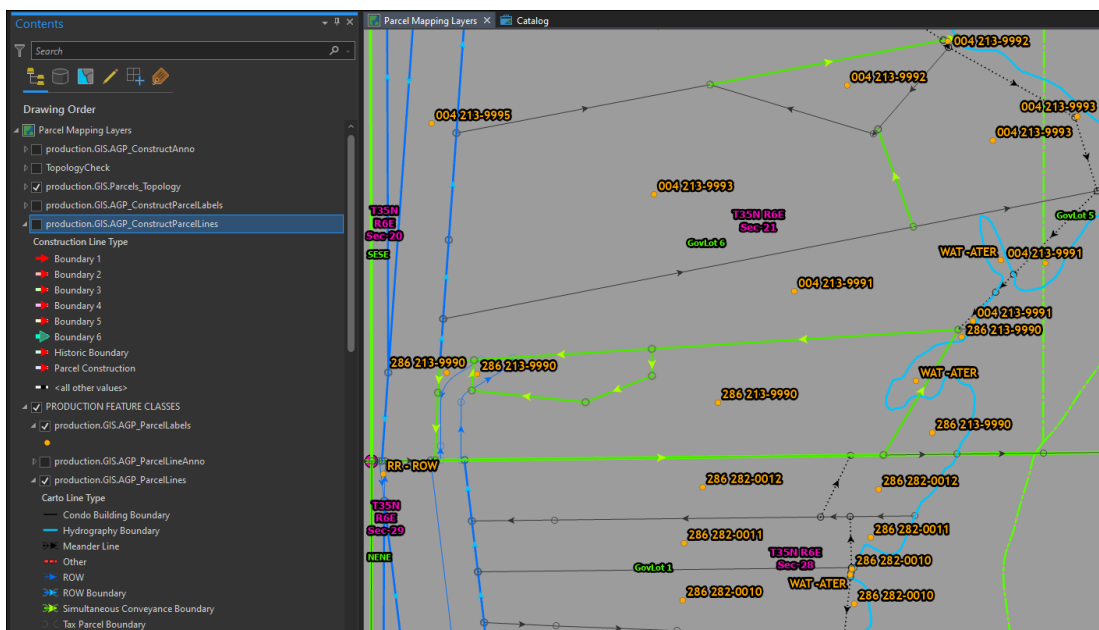


Then select new construction lines (don't include the construction line work that goes from the commencement point to the point of beginning). Once selected, in the Selection and Editing tabs check parcel lines. In the main Map Ribbon select copy, then the drop down under paste, paste special, paste into template, drop down list, Simultaneous Conveyance Boundary, ok.

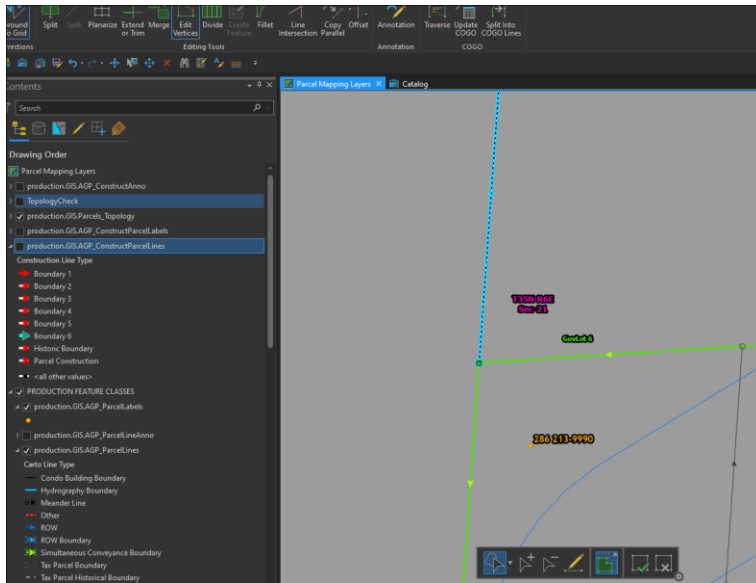
- With lines still highlighted, open Attributes pane, select the whole feature class, and code Boundary Type and Carto Line Type, both as Simultaneous Conveyance Boundary. This will code all of the new Parcel Lines at the same time, instead of needing to do it individually.



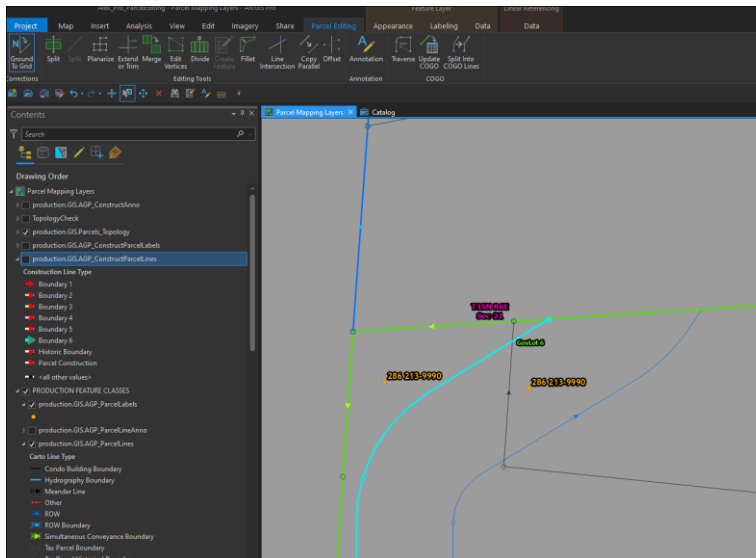
You can then turn off Construction Lines and start to work with the new Parcel Lines.



13. New lines will need to be edited into the existing line work. Typically done using the Extend, Edit Vertices, and Planarize tools. Interior lot lines are coded as, Boundary Type: Simultaneous Conveyance Division Boundary. Carto Line Type: Tax Parcel Boundary. Meander and ROW lines are coded such. If needed, lines are extended to intersect Hydro then planarized to close polygons. Existing interior lines will need to be Planarized with any new lines as well. Such as the existing ROW lines in this CSM.

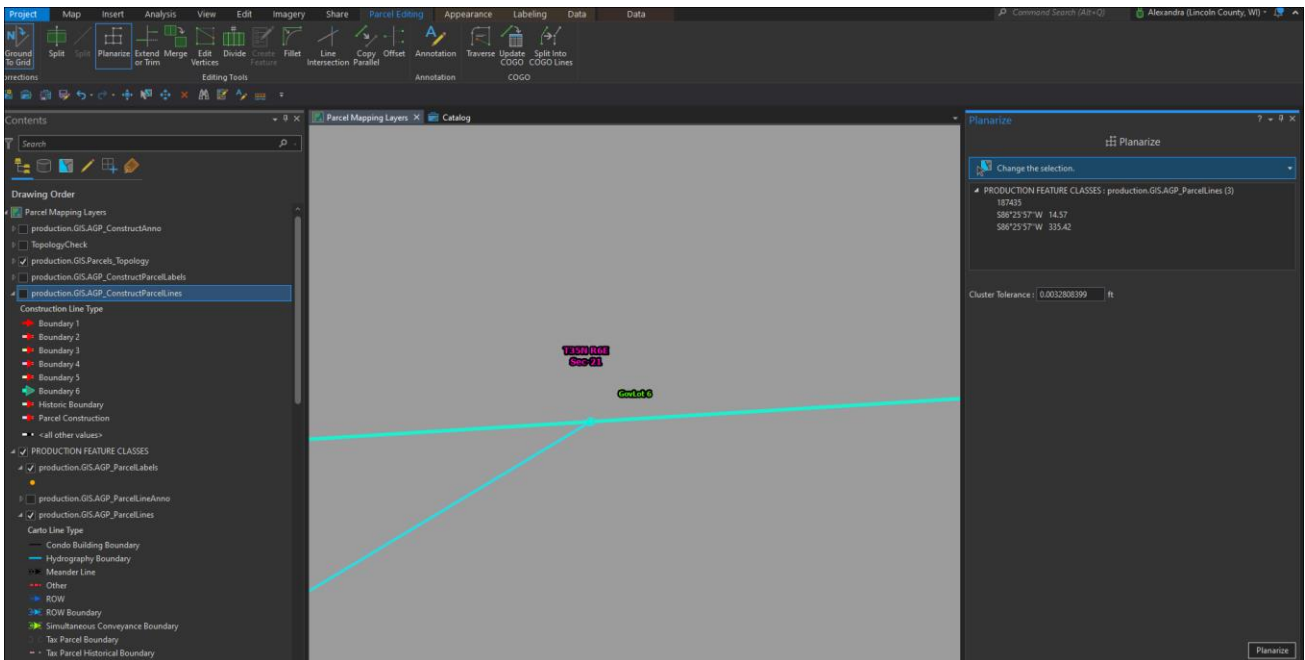
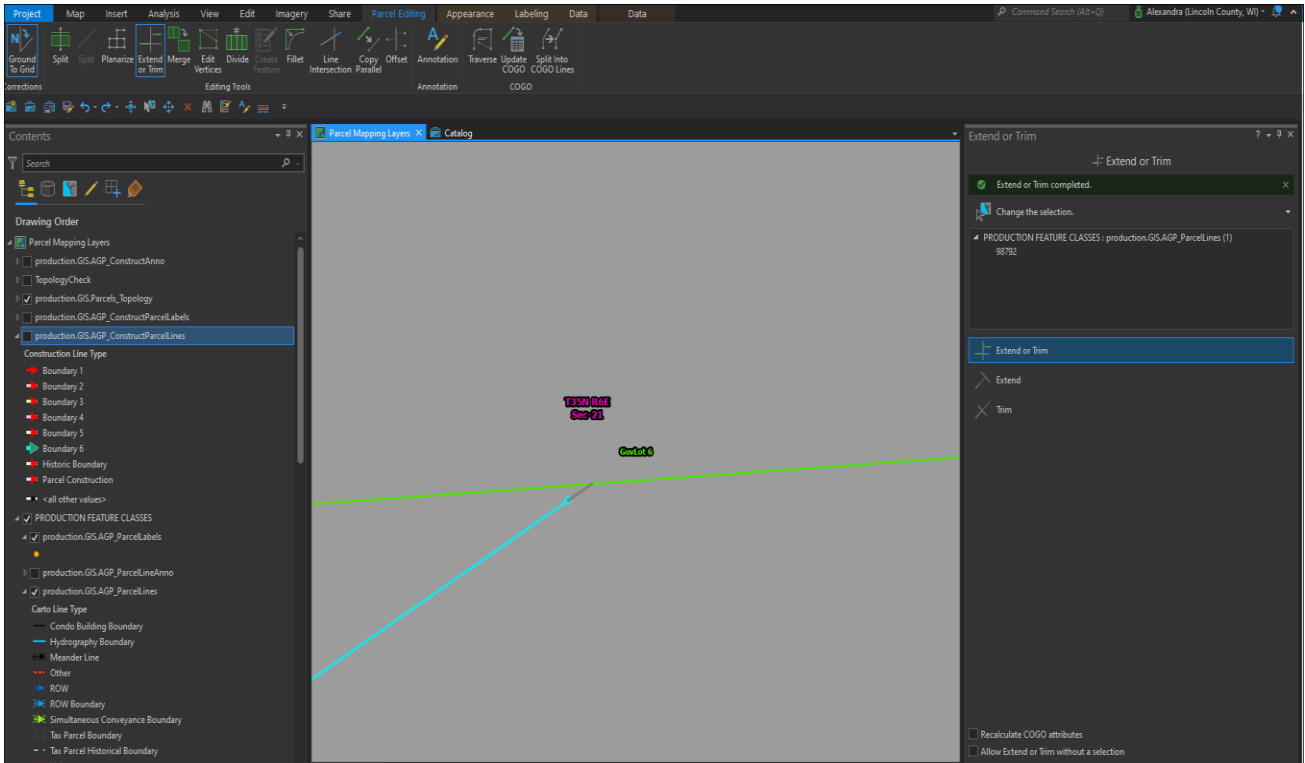


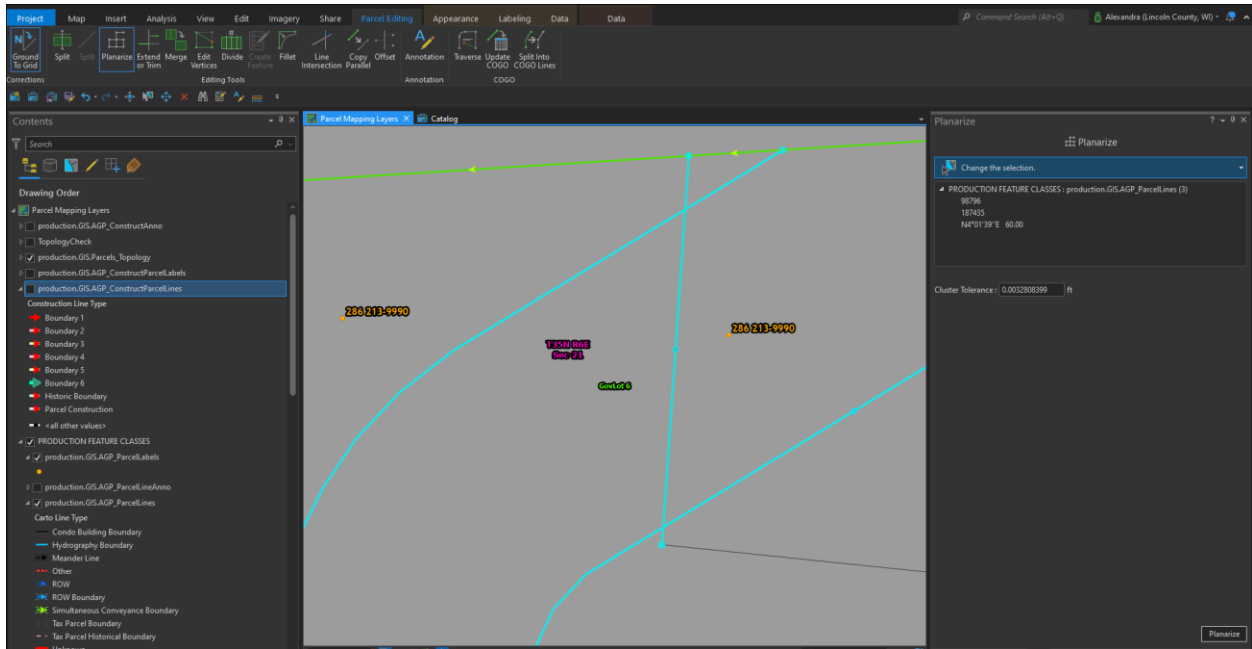
- This is a screenshot of the North West corner of the new CSM. The line selected is part of an existing parcel to the North. Right click to select Edit Vertices. Then the end point of the line can be snapped to the corner of the new CSM. The end goal is make sure the polygons are closed with no gaps, overlaps, or intersecting lines that will create topology errors. Make sure snapping is turned on for "production.GIS.AGP_ParcelLines". Work your way around the new CSM, editing line work as required.



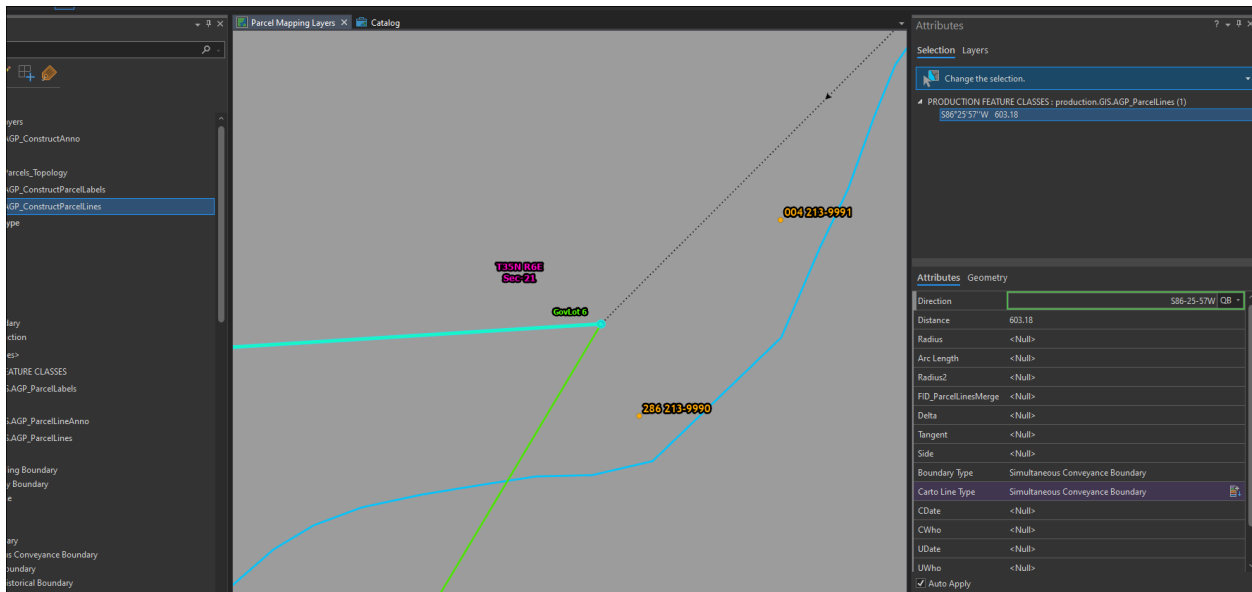
- The existing internal ROW line will need to be extended to the north line of the new CSM. See pictures below for zoomed in area. Planarize after extending.

Have the line you want to extend selected, then click on the line you want to extend TO.





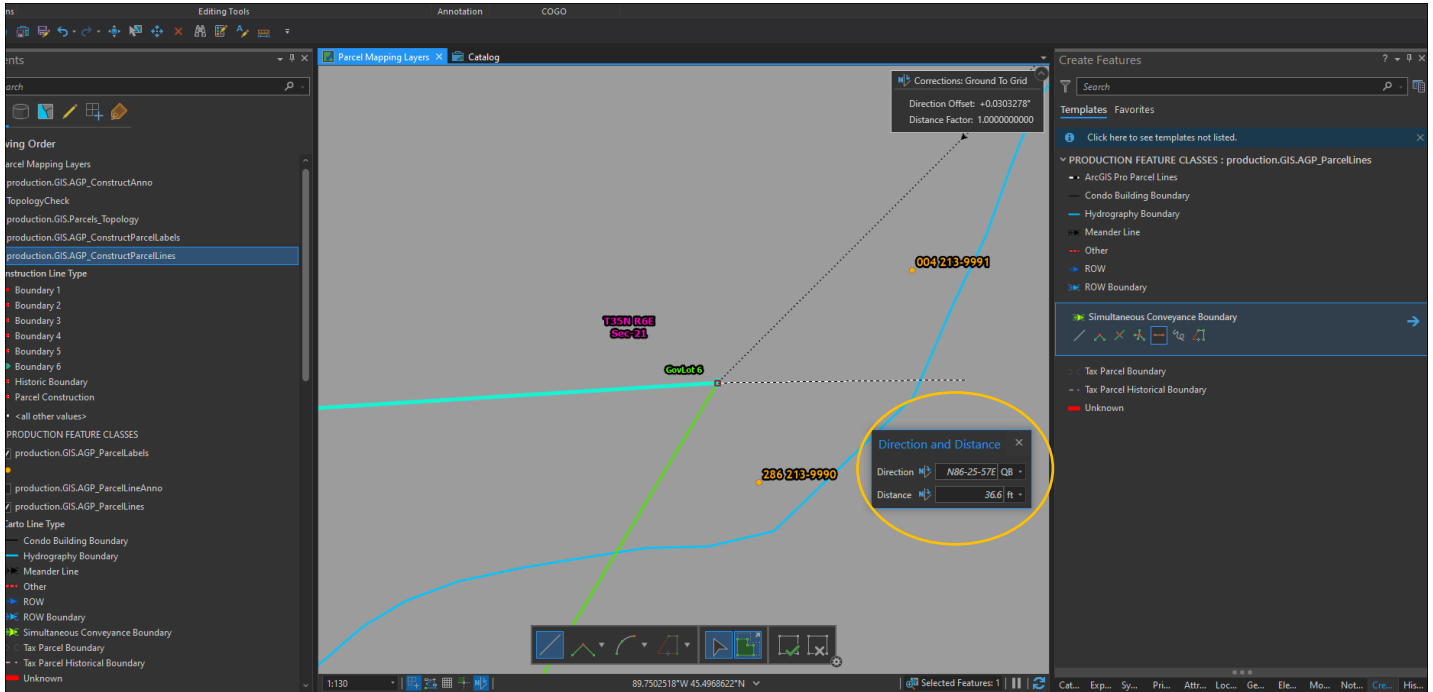
The existing internal ROW lines will have to be planarized with the new interior Lot lines.



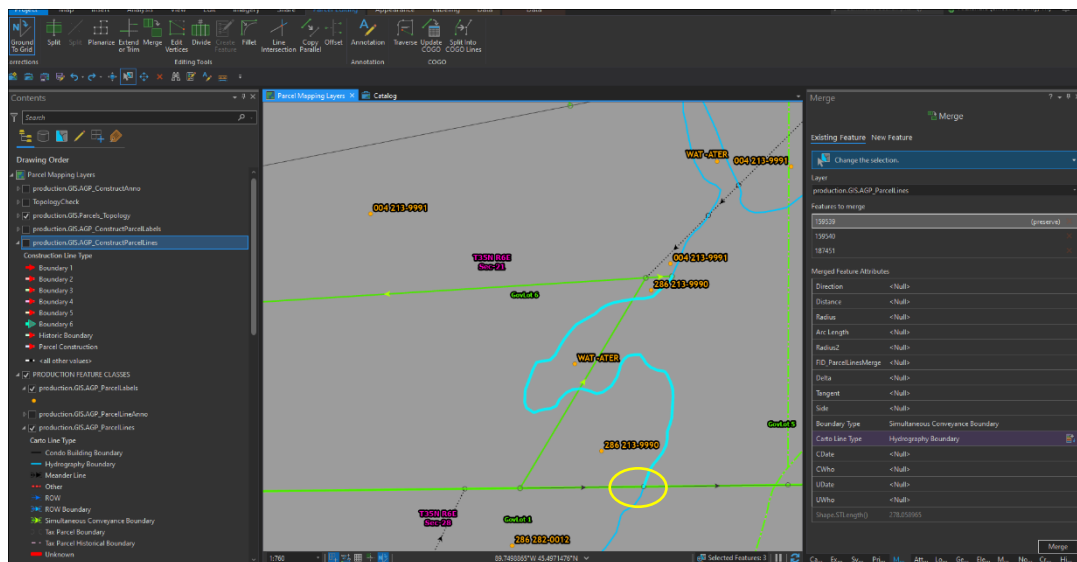
To extend the CSM line to the Hydro line, go into attributes and copy the Direction of the desired line. Go to Create Features>Select desired Feature Class and Line>Two Point Line>Snap to CSM end point for

take off >draw line out>without left clicking, RIGHT click>select Direction/Distance>input direction copied from CSM line>reverse directions on it if necessary so line is drawn in the right direction>enter.

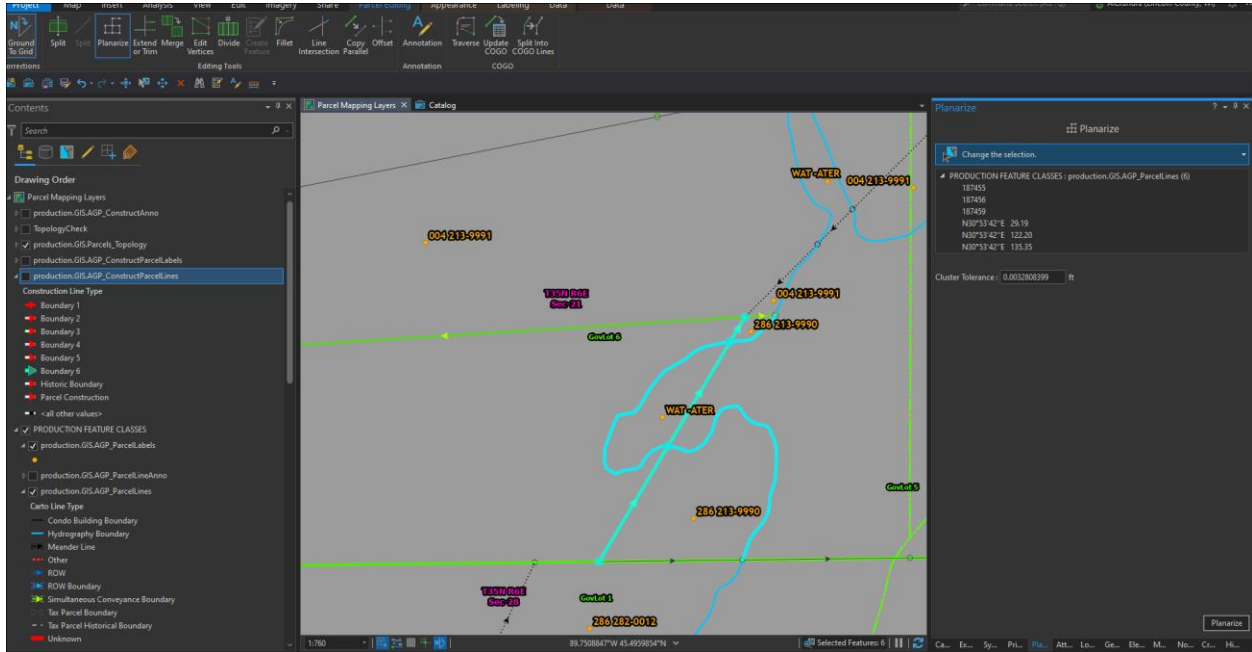
Then select Hydro and new line, Planarize, and delete “tail”.



In this case the Hydro Line is in 4 segments. For easier Planarizing, Select the segments and use the Merge Tool. Be careful to not Merge too many segments or unnecessary segments. Such as the area circled in yellow. If you Merged the next segment down of Hydro (where is it no longer highlighted), it would create a “Lines Must not Intersect” error. As the line running through would no longer be planarized with Hydro, and lines can only touch at their ends.

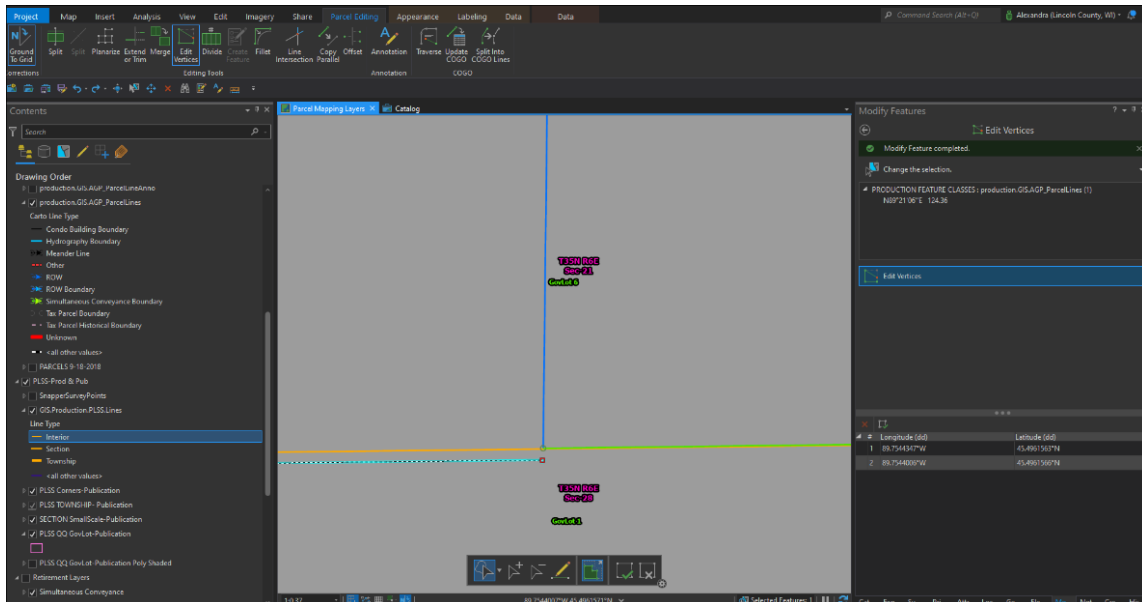


You can then just select the 2 lines and Planarize them.



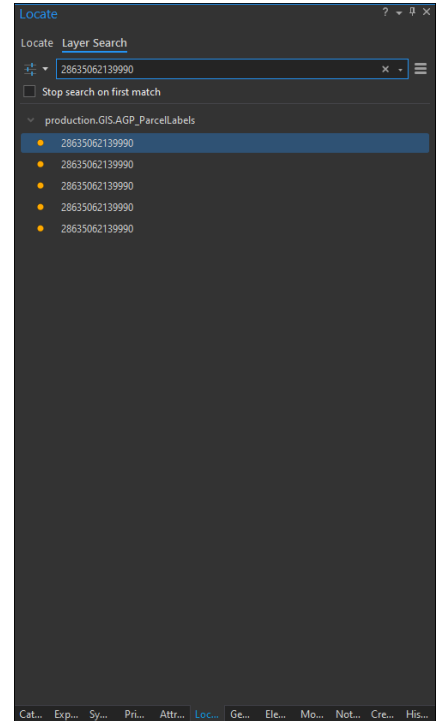
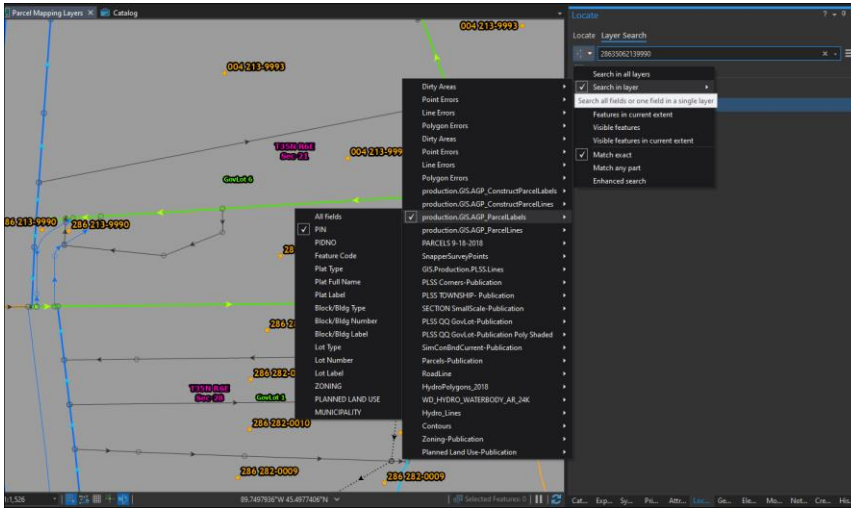
If existing lines (this is the zoomed in area of where the existing eastern internal ROW line where meets the south line of the new CSM) crosses the new line work, just select both lines, Planarize, and delete the tail.

This is the furthest South West corner of the new CSM and existing line work coming into it. Right click the selected line, Edit Vertices, and snap the end point to the corner of the new CSM.

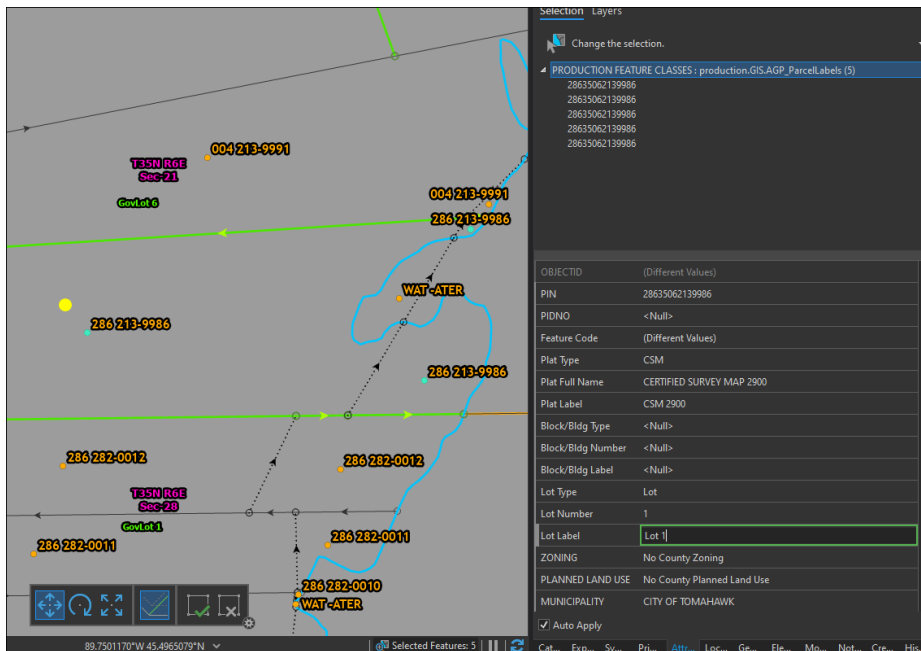


Once line work is complete, PINs to be added and attributes updated.

You can use the Layer Search to find all PINs for the “Parent” Parcel. This way you can work with all at the same time. Shift select all, right click, add to selection. Then switch to Attribute pane. You may have to make “production.GIS.AGP_ParcelLabels” Selectable and Editable to work them.

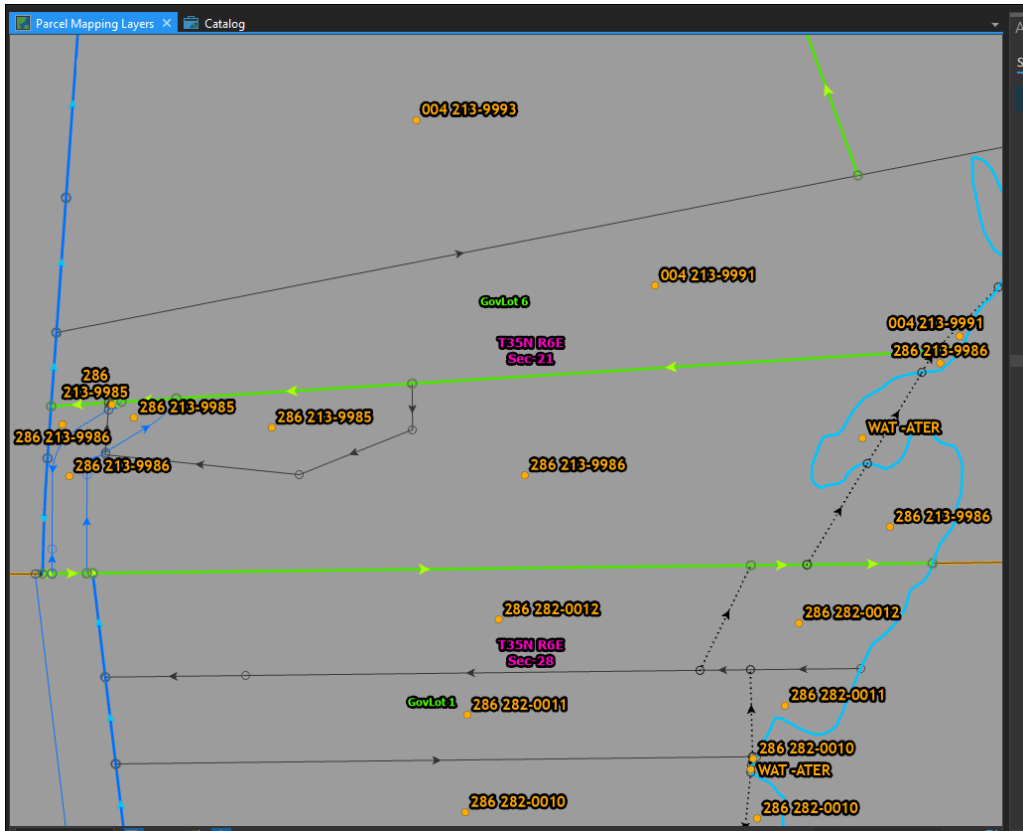


Update Attributes with data from new CSM. Always calculate PIDNO to <Null>. You can then copy and paste a newly updated PIN into Lot 2 and update the attributes for Lot 2. Make sure each polygon has a PIN.

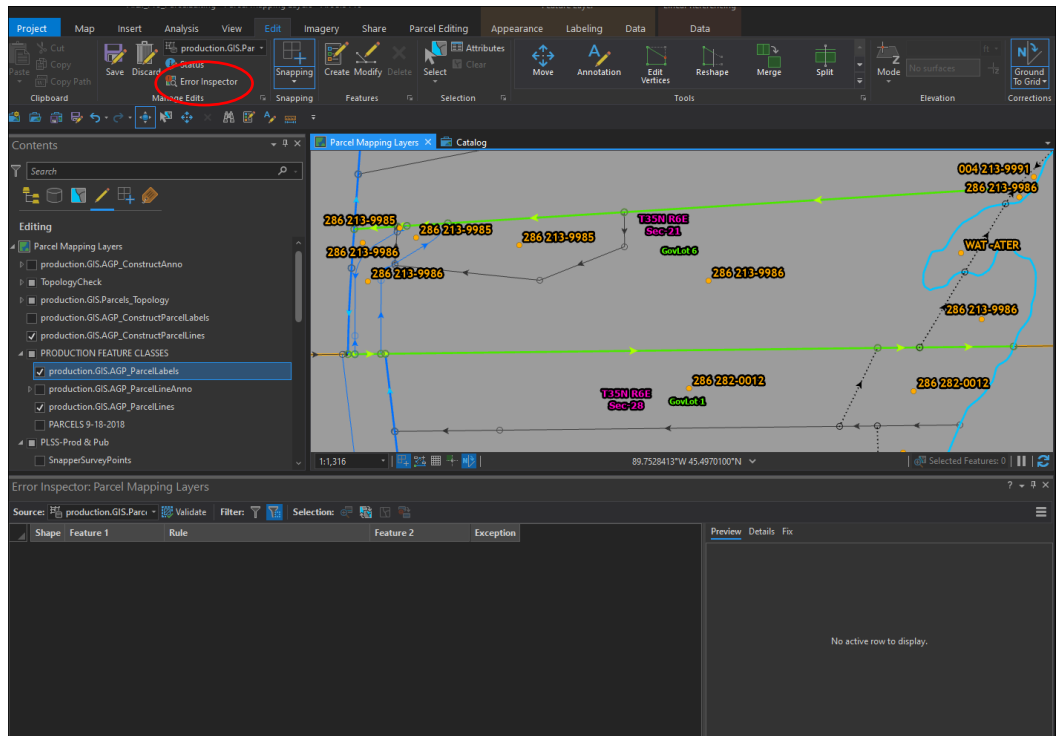


OBJECTID	(Different Values)
PIN	28635062139986
PIDNO	<Null>
Feature Code	(Different Values)
Plat Type	CSM
Plat Full Name	CERTIFIED SURVEY MAP 2900
Plat Label	CSM 2900
Block/Bldg Type	<Null>
Block/Bldg Number	<Null>
Block/Bldg Label	<Null>
Lot Type	Lot
Lot Number	1
Lot Label	Lot 1
ZONING	No County Zoning
PLANNED LAND USE	No County Planned Land Use
MUNICIPALITY	CITY OF TOMAHAWK

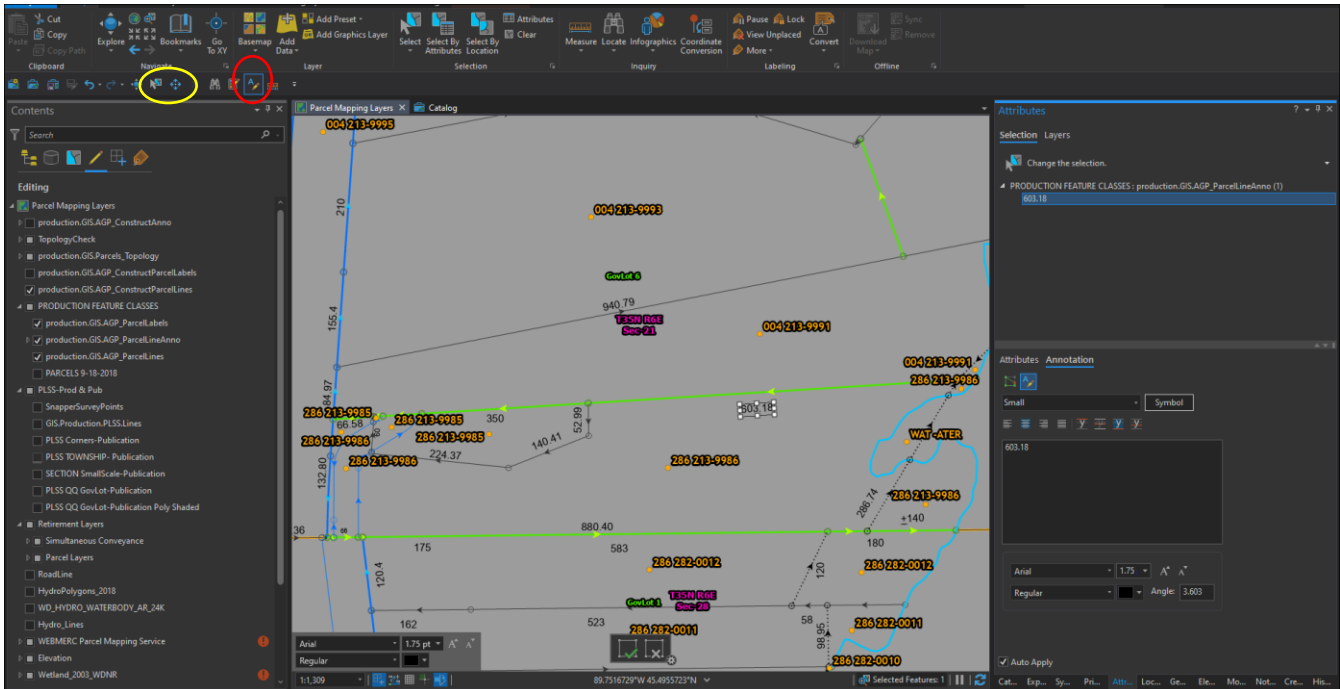
Do a final review of your line work, run an error inspector, make sure lines are coded correctly, make sure all polygons have PINS, make sure PIN data is updated to the new PIN numbers.



Error inspector is found in the Edit Ribbon. And will let you if you have in map topo errors.



14. Annotation is the last step of the process. Make sure “production.GIS.AGP_ParcelLineAnno” is turned on and selectable and editable. Typically existing annotation can just be updated, using the distances from the CSM. Or a nearby annotation can be copy/pasted and dragged to the area. The select and move tools (circled in yellow) work for selecting and moving annotation, but the annotation tool (circled in red) is needed to rotate. The distances are updated in attributes.



For GIS Administrator-

16. Run the python script found here:
P:\SupportDocs\PythonScripts\ParcelTopologyCheckAddendum2.py.
- Right click .py file
 - Edit with IDE
 - (in the program) Run -> Python Shell
17. If there are no topology errors, the publication level feature classes will be created in
P:/Data/Geodatabase/ParcelTopology
18. If there are topology errors, the script will stop and the topology errors will need to be corrected.
- Note that the topology is run against features found in
P:/Data/Geodatabase/ParcelTopology/TopologyCheck
 - You can use these feature classes and corresponding topology to find where there are topology errors, but they will need to be fixed in the SDE feature classes and the tool will need to be re-run.

