

RANGER ALIGNMENTS

1. Start new job if needed with 1 A
2. Elevate beginning point number with the elevation of the starting alignment point number.
 3. Go to edit alignments 2D
 4. Hit the **New** key
 5. Enter the **POB** (point of beginning with starting station)
This can be done with coordinates and elevation but I prefer point number
 6. **HAL** horizontal alignment key in the top left
7. Hit the **Insert** key and start inserting the horizontal alignments in curves and tangents.
Note that you must enter an Azimuth or Bearing at the bottom to start.
After entering an **Azimuth or Bearing** the next time you insert in **HAL** click on the box that says "Make this segment tangent to previous" this will calculate all azimuths in the current alignment and display the azimuth out for plan check.
 8. Hit the **VAL** key to enter vertical alignment.Since you elevated your point number the elevations will be displayed as you insert.
9. When finished and only when finished hit the Green check mark in the top right hand corner and store your alignment.
10. Once the alignment is stored it is important to go into 5C and check the alignment to an existing hardcopy point number to make sure this has been entered correctly.
 11. In 2D edit alignments in the top right hand corner there is a down arrow.
This is where you import and Export road alignments to the hard drive for permanent storage until deleted. I suggest exporting alignments to the hard drive do to file updates.
If you update a file you loose the alignments so all you have to do is Re import the file and Elevate your Point of beginning and put in the station again and you are ready to go after your 5C check.

Remember Alignments are used for GRADING, STORM DRAIN, SEWER, WATER, GAS AND ELECTRIC, AND CURB.

1 alignment is used six different times **MINIMUM**

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