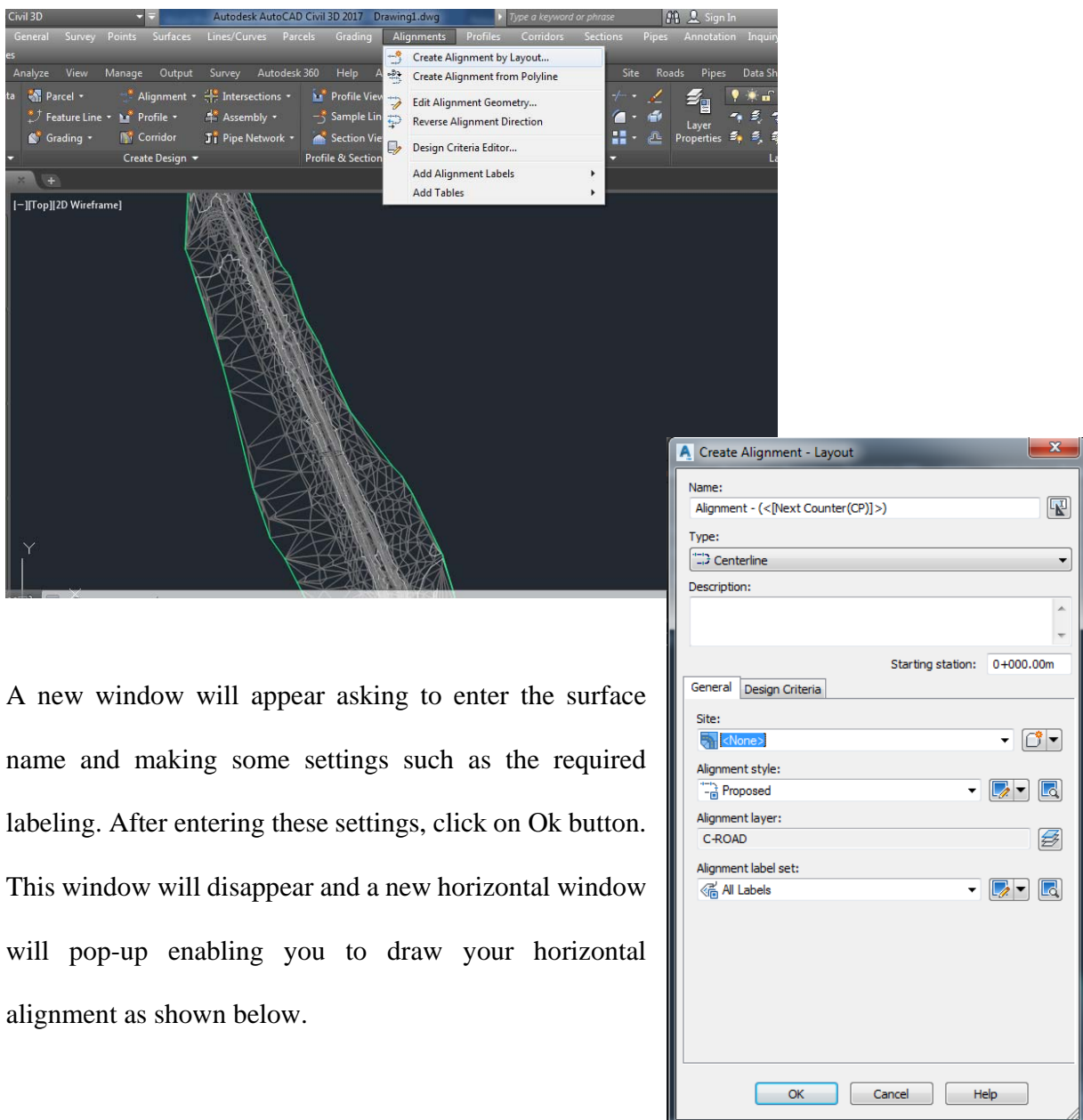


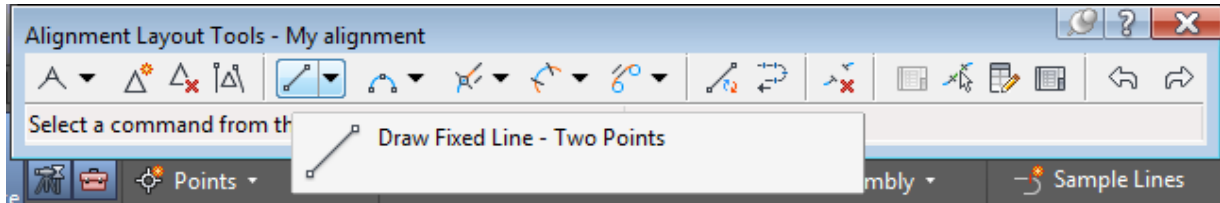
6 Alignments

5.1 Alignment creation

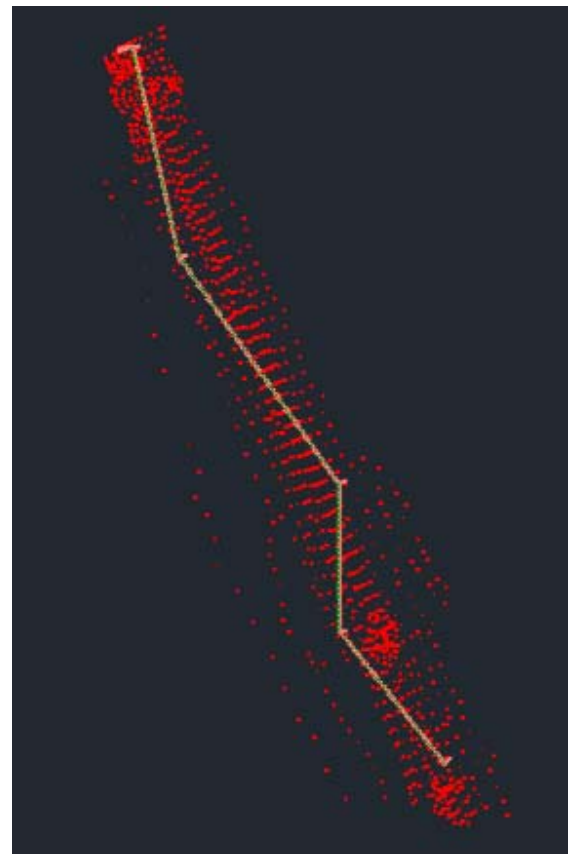
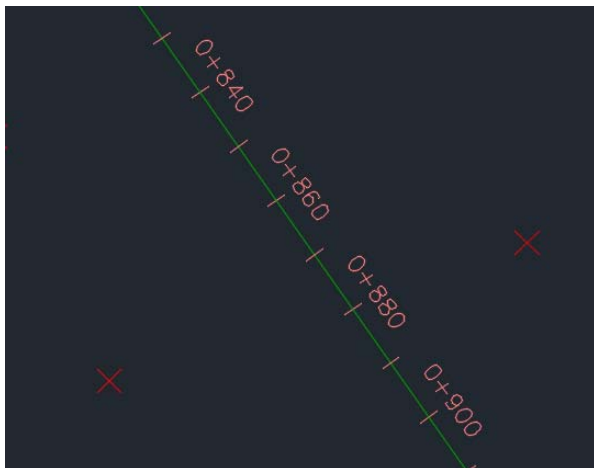
Civil 3D allows user to create the horizontal alignment for the highway section. There are several methods to do so. One of them is by selecting alignment from the menu bar and choose *create alignment by layout* as shown in figure below.



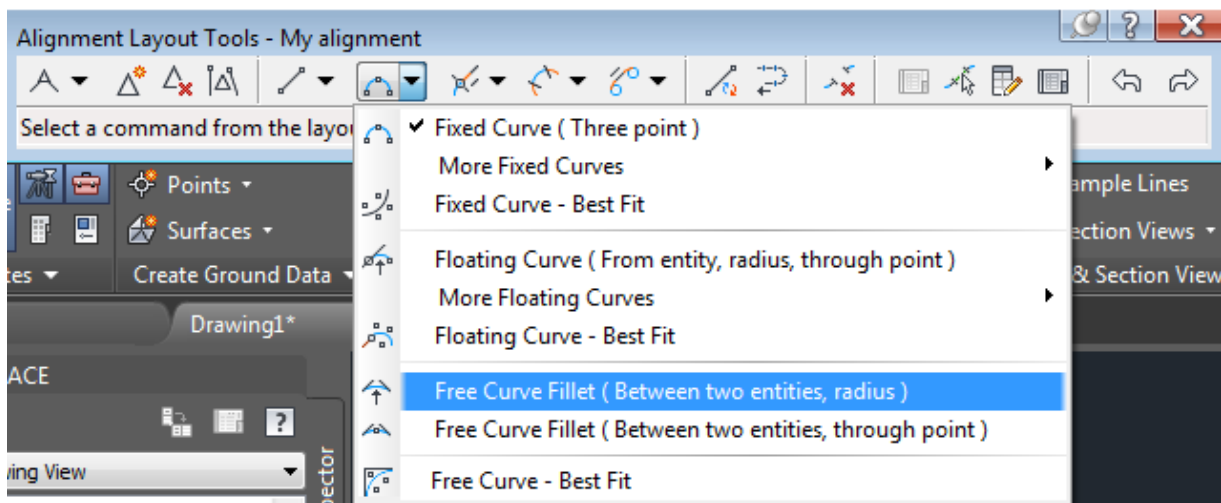
A new window will appear asking to enter the surface name and making some settings such as the required labeling. After entering these settings, click on Ok button. This window will disappear and a new horizontal window will pop-up enabling you to draw your horizontal alignment as shown below.



From the above horizontal window choose draw fixed line. After that, draw your alignment as you did in normal AutoCAD software. After finishing alignment drawing, press enter or right click. This will display labling along the drawn alignment.



To draw horizontal curves connecting these straight lines, choose *free curve fillet* as shown in figure below. Then, select the first line and the second line and enter the desired radius. This will draw curve between the selected line. Repeat these steps for all your required curve locations. Finally press ESC key to finish curve creating process. This will re-label the entire alignment but in this time will take in consideration the curved parts.



5.2 Editing design of curves

Sometime, it is necessary to edit radii of curves. This can be done by choosing *alignment grid view*



A new panorama window will appear and from which you can do the necessary changes as shown in figure below.

No.	Type	Tangency Constraint	Parameter Constrai...	Parameter C...	Length	Radius	Di
1	Line	Not Constrained (Fixed)		Two points	374.903m		S
2	Curve	Constrained on Both Sides (Free)		Radius	757.436m	1899.782m	
3	Line	Not Constrained (Fixed)		Two points	413.512m		S
4	Curve	Constrained on Both Sides (Free)		Radius	367.757m	600.000m	
5	Line	Not Constrained (Fixed)		Two points	118.639m		S
6	Curve	Constrained on Both Sides (Free)		Radius	402.045m	600.000m	
7	Line	Not Constrained (Fixed)		Two points	389.298m		S

5.3 Editing alignment labeling

In most case, the designer needs to modify the labeling of the alignment based on the topography or department of transportation requirments. This can be condcuting by selecting your alignment and chossing add/edit lable (from the related ribbons). A new window will pop-up enabling you to modify the labeling interval and style.

