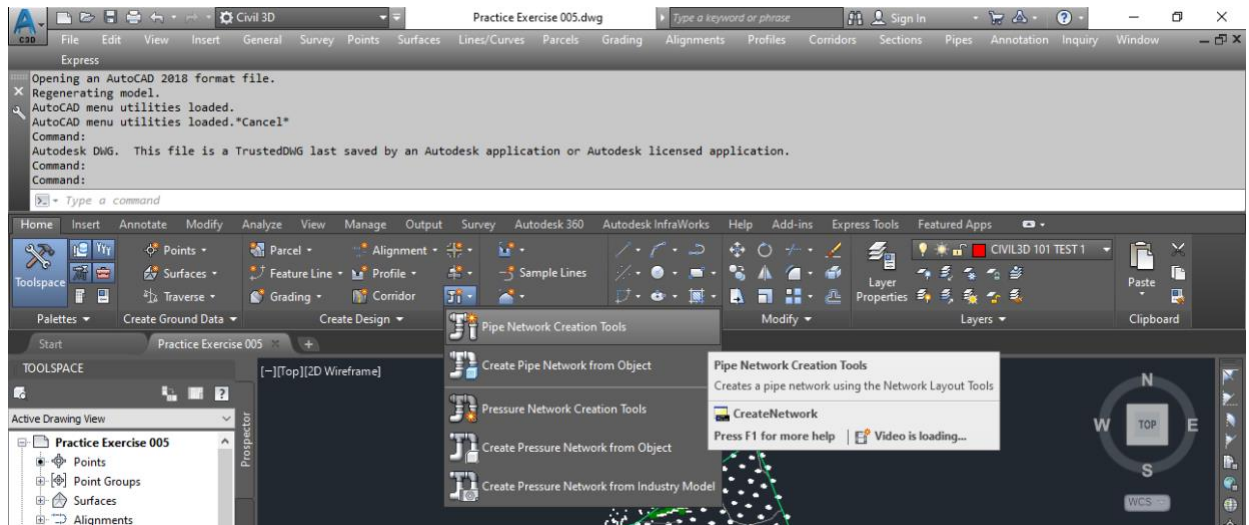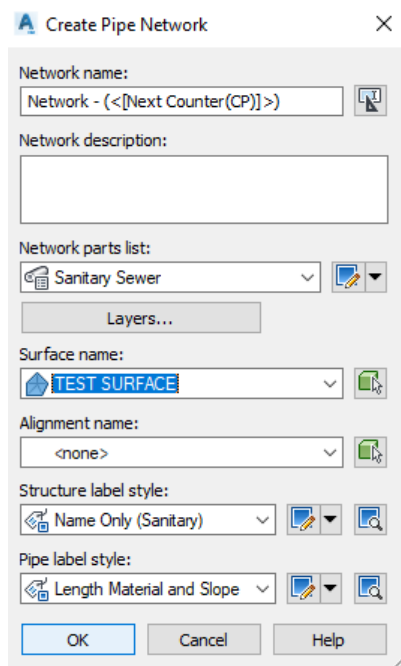# Solution Exercise 5
Create a Pipe Network

1. Open Practice Exercise 005.dwg.

2. In the Create Design panel, choose Pipe Network Creation Tools from the Pipe Network drop-down menu.


3. Set the Network Parts List to Sanitary Sewer and the Surface Name to TEST SURFACE.
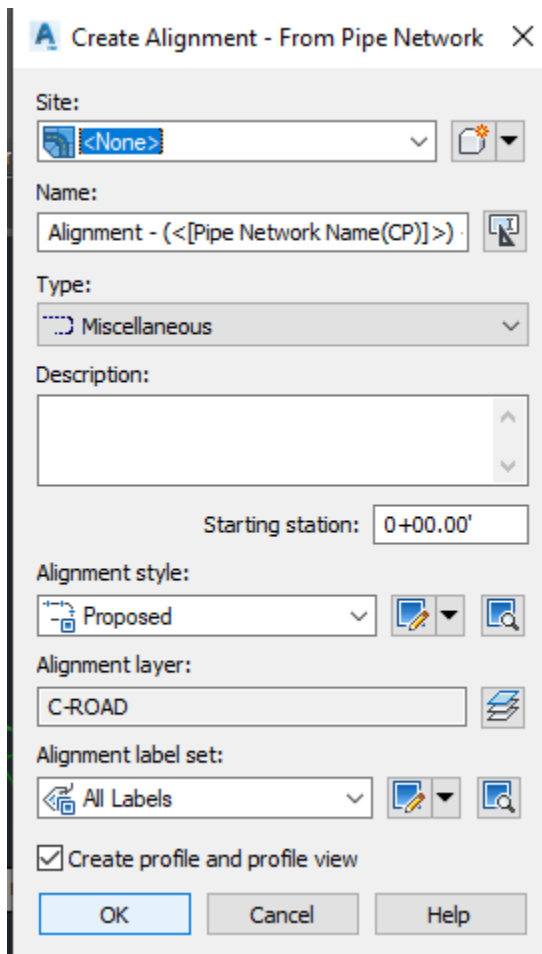
4. In Network Layout Tools, set the structure type to the only concentric cylindrical structure and the pipe type to 12 inch PVC. Toggle build direction to Downslope and choose the Pipes and Structures creation method.
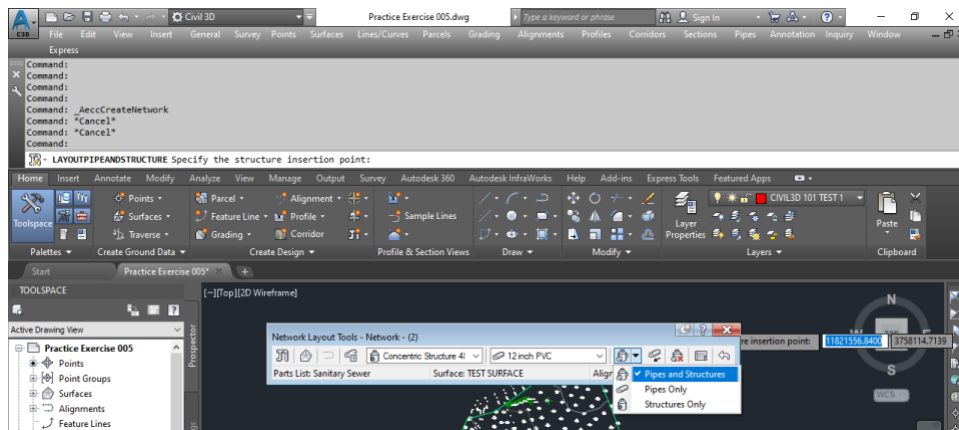
5. Pick structure insertion points starting at the center of circle 1 and moving in numerical order through to circle 5.

6. In the Create Design panel, under Alignment choose Create Alignment From Network Parts.
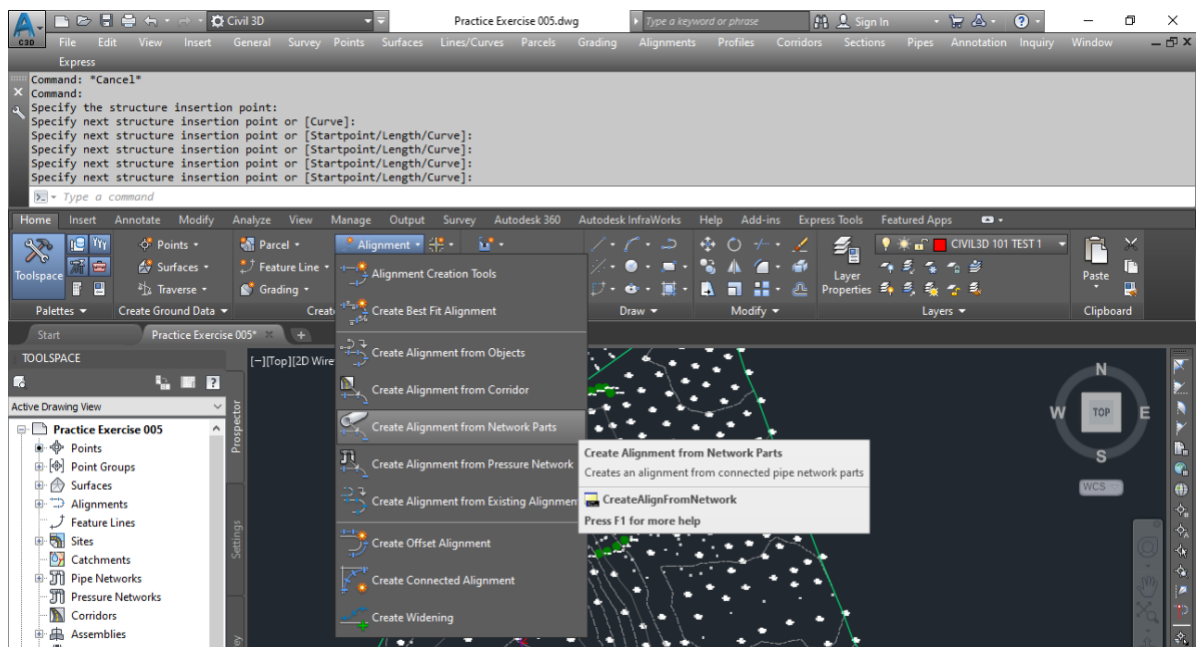
7. Select the first structure and then the last structure. Press Enter to exit the command.
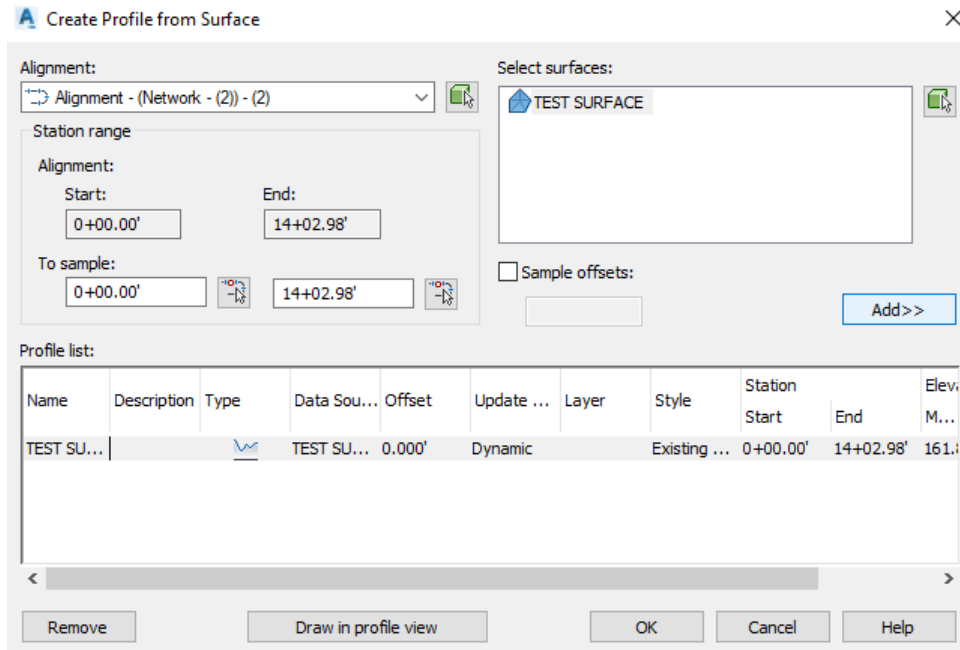
8. Accept the default options by clicking OK.

9. Add the TEST SURFACE as a surface profile and then click Draw in Profile View.

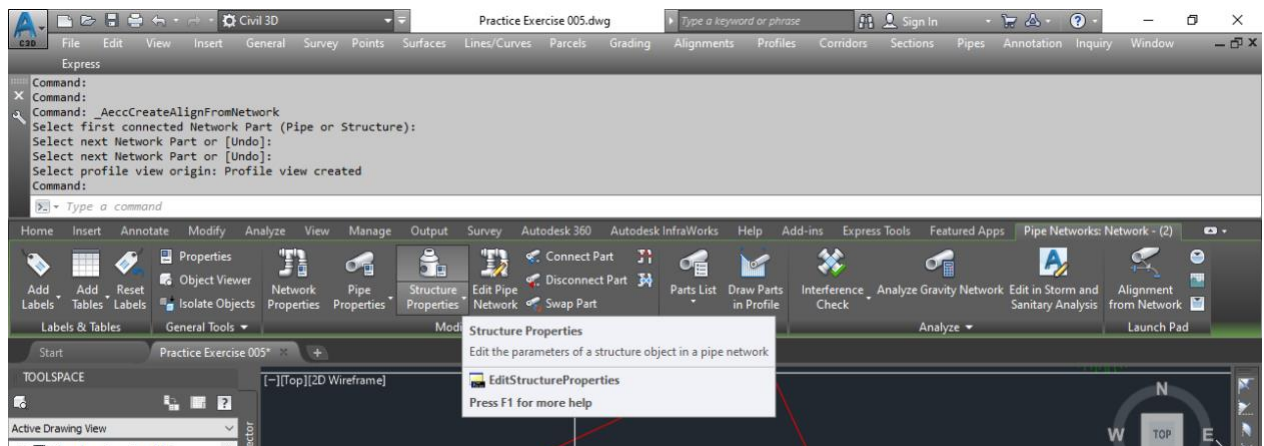10. Accept all Create Profile View defaults and click Create Profile View.
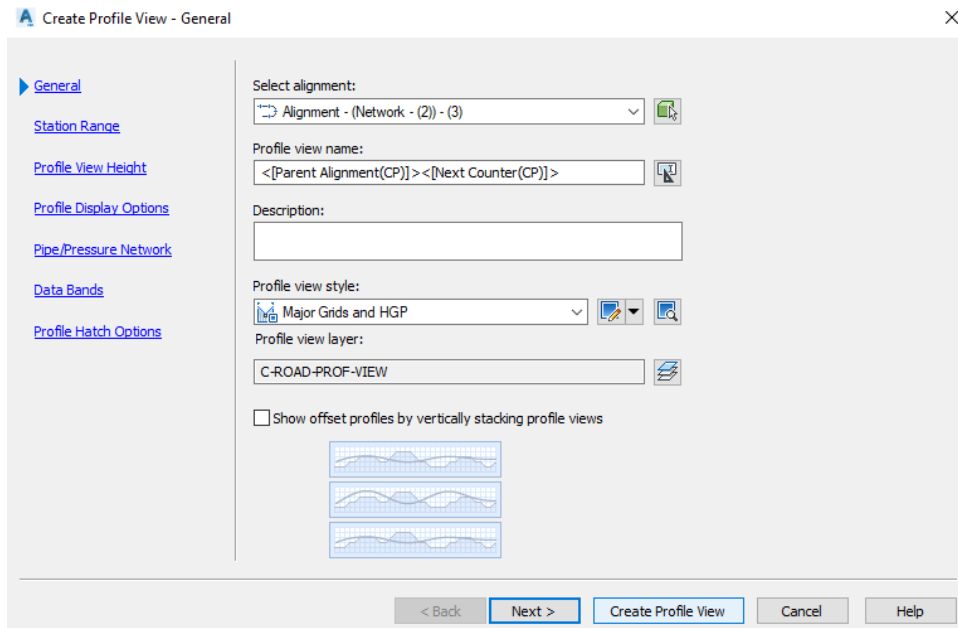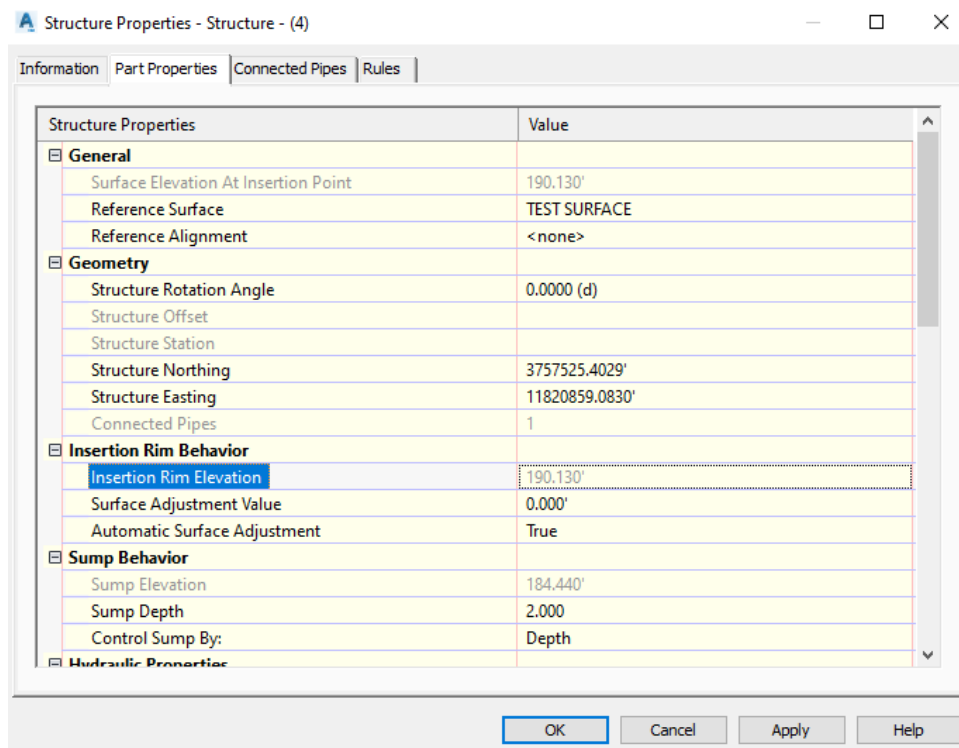

11. Pick the lower-left corner of the profile view.

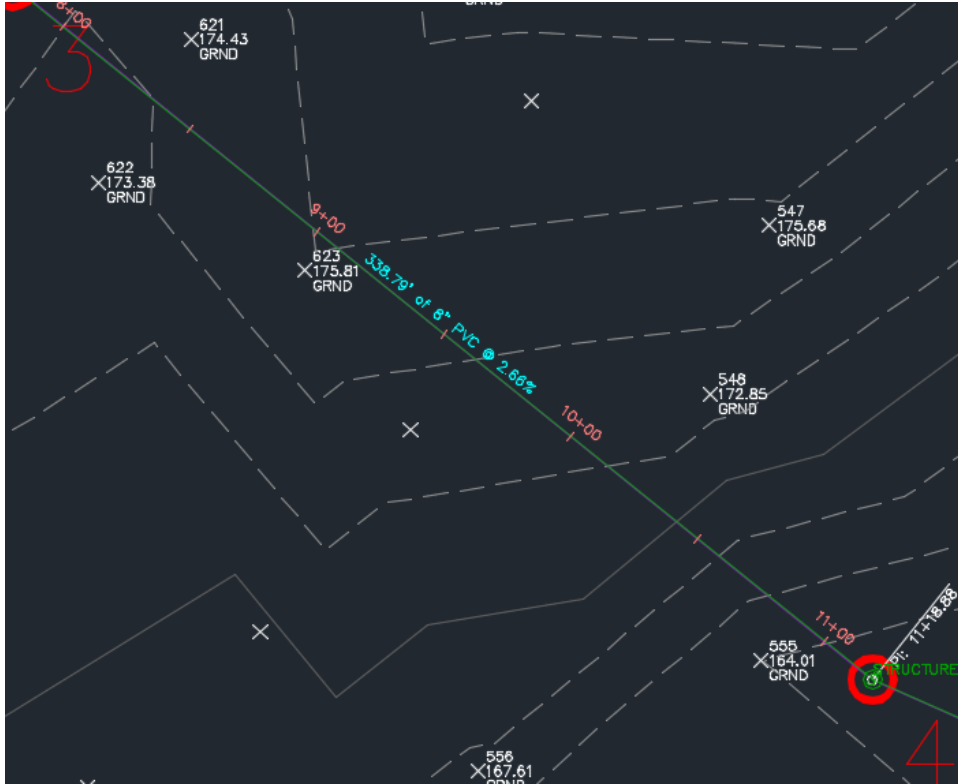12. Select the structure at Circle 1 and click Structure Properties.
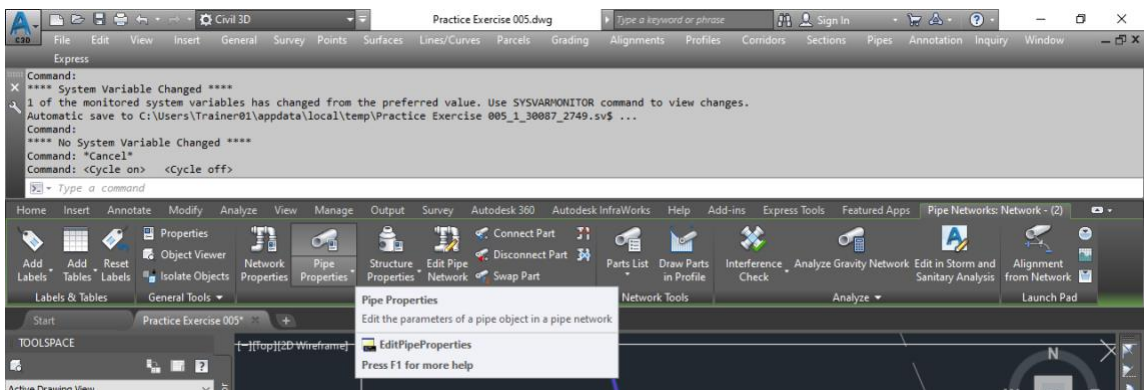

13. Take note of the Rim Elevation.

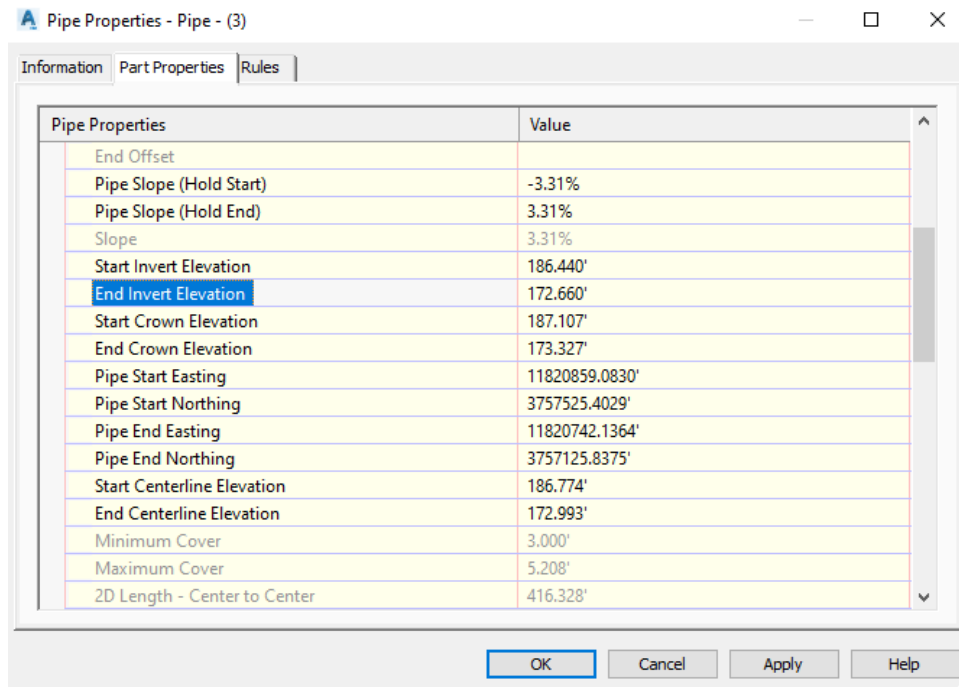14. Navigate to the center of the pipe between 3 and 4.
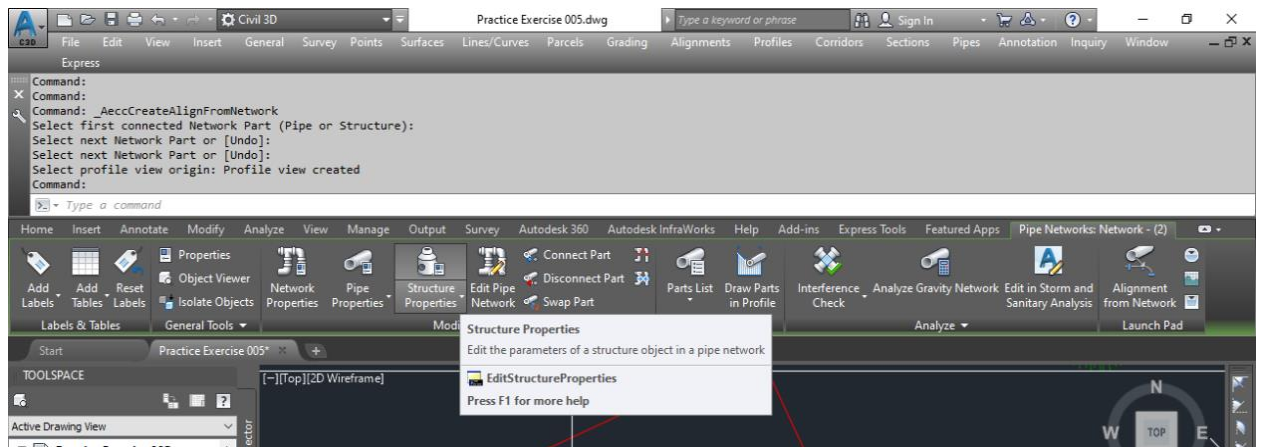
15. Take note of the slope.

16. Select the pipe between 1 and 2 and then choose Pipe Properties.

17. Take note of the End Invert Elevation.

18. Select the structure at Circle 5 and click Structure Properties.

19. Take note of the Rim to Sump Height.

Structure Properties - Structure - (8)

Information | Part Properties | Connected Pipes | Rules

Structure Properties	Value
Part Description	Concentric Cylindrical Structure
Part Size Name	Concentric Structure 48 dia 24 frame 24 cone 5 w...
Structure Shape	Cylinder
Vertical Pipe Clearance	34.000"
Rim to Sump Height	6.948'
Wall Thickness	5.000"
Floor Thickness	6.000"
Material	Reinforced Concrete
Frame	Standard
Grate	Standard
Cover	Standard
Frame Height	4.000"
Frame Diameter	24.000"
Frame Length	
Frame Width	
Barrel Height	
Barrel Pipe Clearance	6.000"
Cone Height	24.000"
Slab Thickness	
Inner Structure Diameter	48.000"

OK   Cancel   Apply   Help

ANSWERS

What is the Rim elevation of the structure at 1? 190.13

What is the percent slope of the pipe between 3 and 4? 2.66

What is the end invert elevation of the pipe between 1 and 2? 172.66

What is the Rim to Sump height of the structure at 5? 6.95