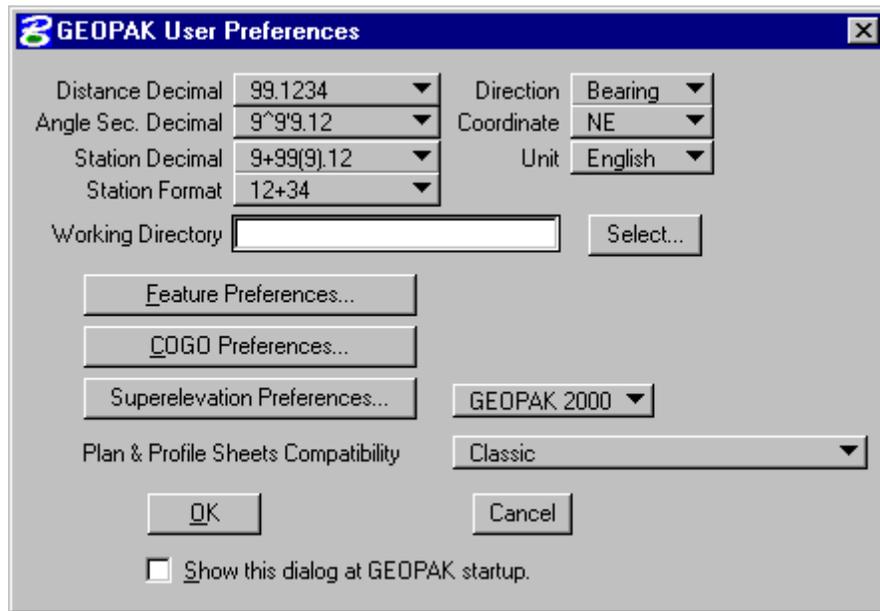


Exercise 5-1

This is an individual exercise to practice using COGO. All of the steps are given to you. Make sure you understand each step, because later you will need to determine which tools are needed to store COGO elements

1. Open the MicroStation file **t:\br-proj\Exercise_Rte_24\Route_24.dgn**.

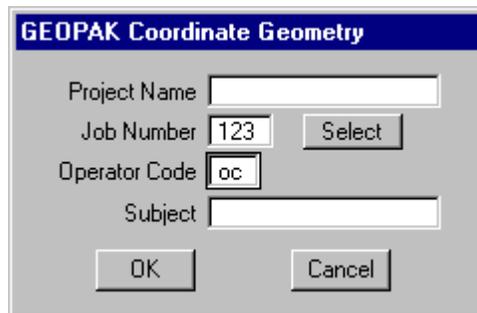
2. Go to **Applications>>Geopak Road>>User Preferences** and delete the working directory



3. Open the **Coordinate Geometry** dialog. 

Create **Job Number: 123**

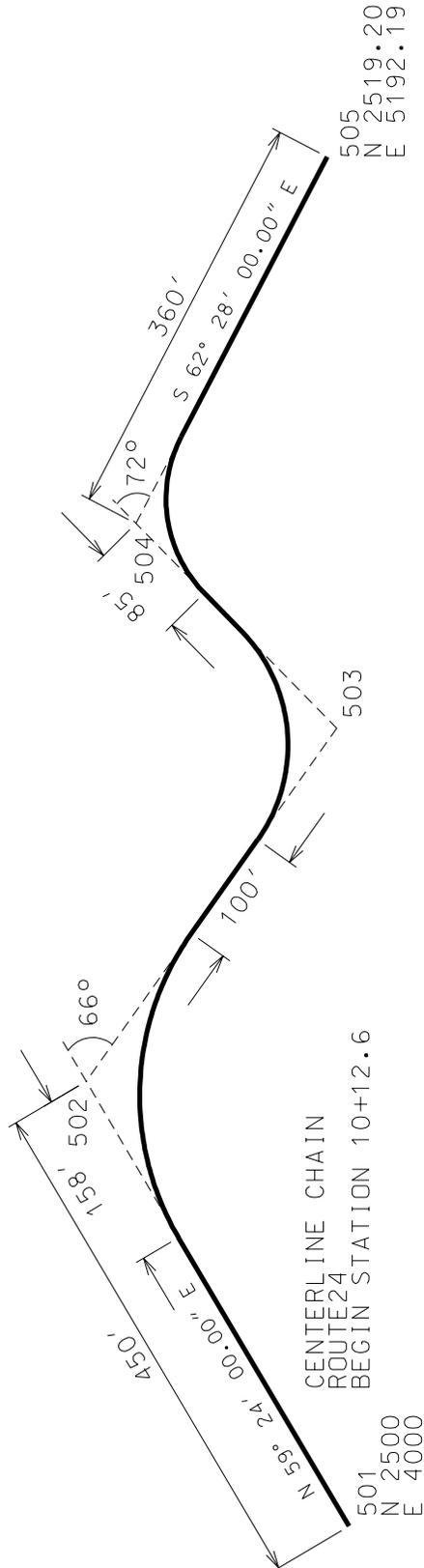
Set the **Operator Code** to your initials.



Exercise 5-1 Route24

GEOPAK Road for Bridge

Create the following alignment as shown on the following pages.



4. Store points 501 and 505 with the coordinates shown.

Point > Store

Point Number: 501

Auto Increment

Coordinates

Northing: 2500 DP

Easting: 4000

Station

Elevation

PCode

Cell Scale

Feature

Description

Apply

Point > Store

Point Number: 505

Auto Increment

Coordinates

Northing: 2519.2 DP

Easting: 5192.19

Station

Elevation

PCode

Cell Scale

Feature

Description

Apply

5. Locate points 502 and 504.

Locate Traverse

Locate Point: 502

Elevation On

Side Shot Mode

Starting Point

Name: 501 Equate

Elevation: 0.000000 Instr. Height: 0.000000

Direction

Bearing: N 59 24 00.00 E +

Offset Distance RT: 0.0000

Distance

Distance: 450

Zenith Angle: 90 00 00.00 Rod Height: 0.000000

Apply

Locate Traverse

Locate Point: 504

Elevation On

Side Shot Mode

Starting Point

Name: 505 Equate

Elevation: 0.000000 Instr. Height: 0.000000

Direction

Bearing: N 62 28 W +

Offset Distance RT: 0.0000

Distance

Distance: 360

Zenith Angle: 90 00 00.00 Rod Height: 0.000000

Apply

6. Locate point 503 by using the **Intersect** tool.

7. Store CURVE1, CURVE2, and CURVE3.

7. (Continued)

Store Curve from Tangents

Curve name Station

Back Tangent

PB

PI

Element

Tangent

Increment

Ahead Tangent

Point Ahead (PA)

PT Curve1 to 503 m 100

Store Curve from Tangents

Curve name Station

Back Tangent

PB

PI

Element

Tangent

Increment

Ahead Tangent

Point Ahead (PA)

8. Store the alignment chain Route24.

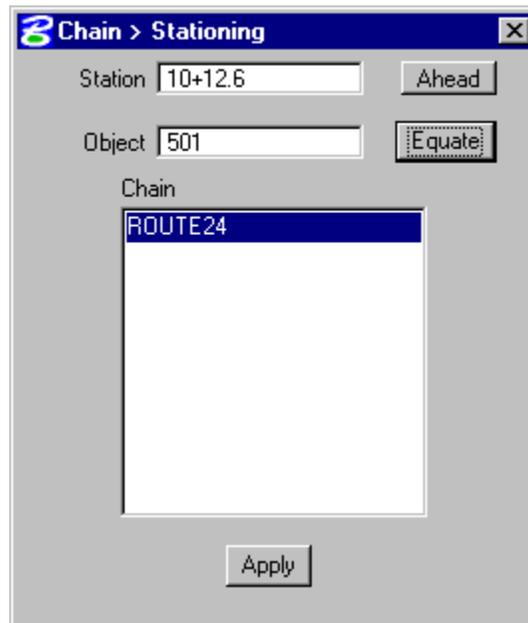
Chain > Store > From Elements

Chain Name

Elements

Point Number

9. Station the centerline at the beginning with station 10+12.6



10. Describe the chain and save the output file. Review the output file in **UltraEdit**.

11. Use **COGO Navigator** to view the data.

12. Exit Coordinate Geometry.