

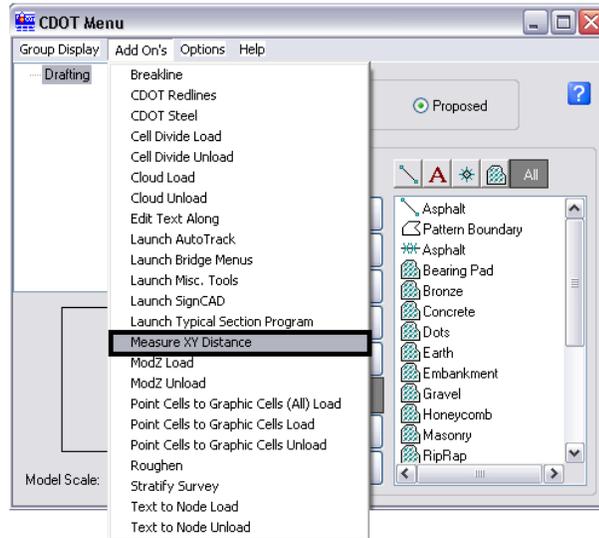
# CDOT Measure XY Distance Tool



This document guides you through measuring distances using the Measure XY Distance Tool.  
**Measure XY Distance**

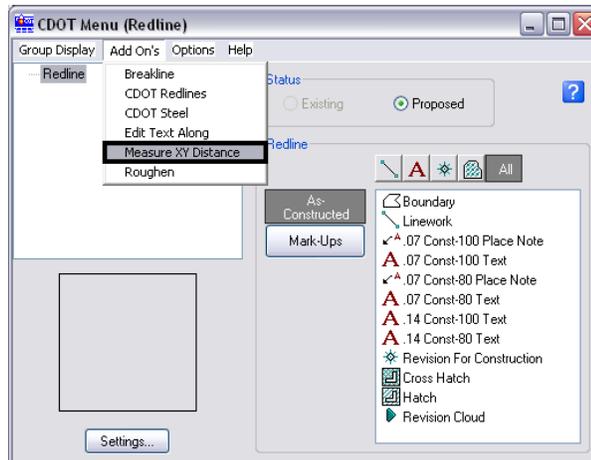
## Opening in MicroStation

1. From the CDOT Menu select **Add On's > Measure XY Distance**



## Opening in Redline

2. From the CDOT Menu select **Add On's > Measure XY Distance**.

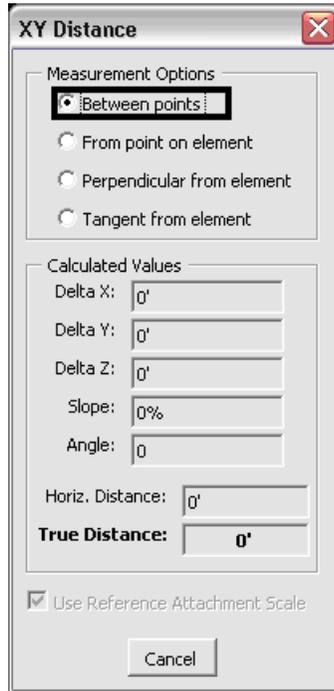


The **XY Distance** dialog should open.

## CDOT Measure XY Distance Tool.pdf

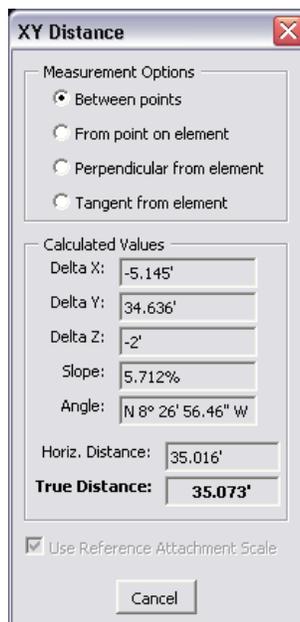
### Measuring Between Points

1. In the **XY Distance** dialog under *Measurement Options* select *Between points*.



The screenshot shows the 'XY Distance' dialog box with the 'Measurement Options' section. The 'Between points' radio button is selected and highlighted with a black box. Other options include 'From point on element', 'Perpendicular from element', and 'Tangent from element'. The 'Calculated Values' section shows Delta X, Delta Y, Delta Z, Slope, and Angle all set to 0. The 'True Distance' is also 0. A 'Use Reference Attachment Scale' checkbox is checked. A 'Cancel' button is at the bottom.

2. Enter any two points for measure in the design file and the *Calculated Values* screen will display data.

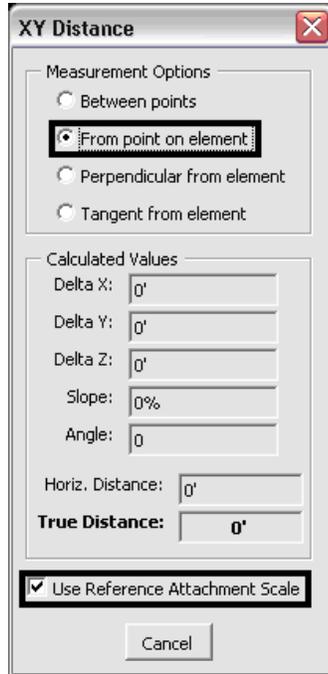


The screenshot shows the 'XY Distance' dialog box with the 'Measurement Options' section. The 'Between points' radio button is selected. The 'Calculated Values' section displays the following data: Delta X: -5.145', Delta Y: 34.636', Delta Z: -2', Slope: 5.712%, Angle: N 8° 26' 56.46" W. The 'True Distance' is 35.073'. A 'Use Reference Attachment Scale' checkbox is checked. A 'Cancel' button is at the bottom.

**Note:** Distance and Angle values will be displayed based on Coordinate Readout settings establish in the design files settings. To change coordinate readout settings select **Settings > Design File** and choose *Coordinate Readout* in the *Category* list.

### Measuring from Point on Element

1. In the **XY Distance** dialog under *Measurement Options* select *From point on element*.

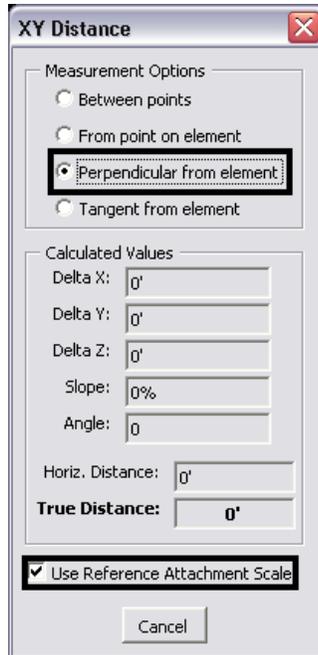


2. Choose either reference scale or design values by toggling the *Use Reference Attachment Scale* checkbox *on/off*. If the *Use Reference Attachment Scale* checkbox is *on* the *Calculated Values* will be scaled by the reference attachment scale.
3. Data point on an element to measure from in the design file.
4. Data point on any point or element to measure to in the design file. Data will display in the *Calculated Values* field.

**Note:** Measurements with this method require selecting an element. If measuring between points choose *Between Points* in the *Measurement Options* field. If selecting an element in a reference attachment the *Locate* setting must be turned on for that attachment.

### Measuring Perpendicular from Element

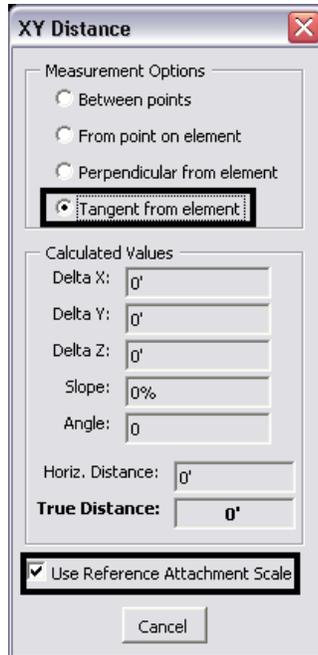
1. In the **XY Distance** dialog under *Measurement Options* select *Perpendicular from element*.



2. Choose either reference scale or design values by toggling the *Use Reference Attachment Scale* checkbox *on/off*.
3. Data point on an element to measure from in the design file.
4. Data point on any point or element perpendicular to measure to in the design file. Data will display in the *Calculated Values* field.

### Measuring Tangent from Element

1. In the **XY Distance** dialog under *Measurement Options* select *Tangent from element*.



2. Choose either reference scale or design values by toggling the *Use Reference Attachment Scale* checkbox *on/off*.
3. Data point on any elliptical or circular element to measure from in the design file.
4. Data point on any point or element to measure to in the design file. Tangential distance and data will display in the *Calculated Values* field.