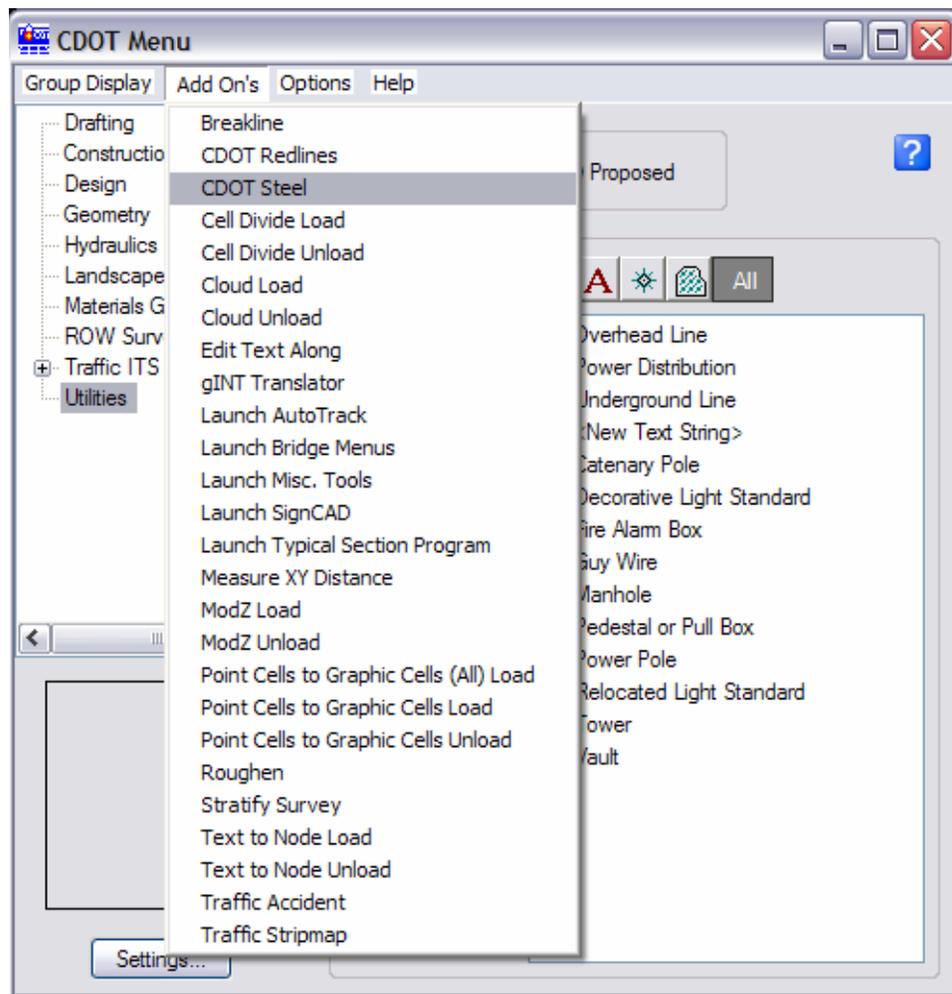


This document is designed to serve as a guide for placing steel structure components in MicroStation. The CDOT Steel utility is an update to the previous Steel program.

Placing steel sections

1. From the CDOT Menu, select **Add On's > CDOT Steel**.



2. When the CDOT Steel dialog displays you will notice that the currently defined structure is attached to your cursor. As you make changes in the dialog the changes will be immediately reflected in the structure. To place the structure in the design file left-click the mouse at the desired location.

3. In the CDOT Steel dialog select the **Status** of the steel structure you are placing, **Existing** or **Proposed**.

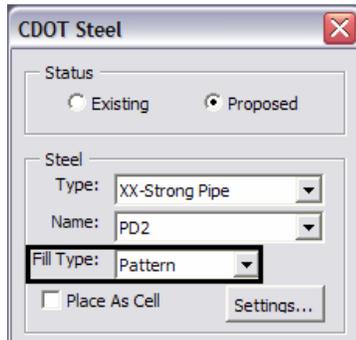


Changing the **Status** setting automatically changes the MicroStation settings to the correct level and bylevel symbology.

4. Select the **Type** of structure element and **Name** to place from the drop-down lists. Changing the **Type** automatically updates the list in the **Name** drop-down list.

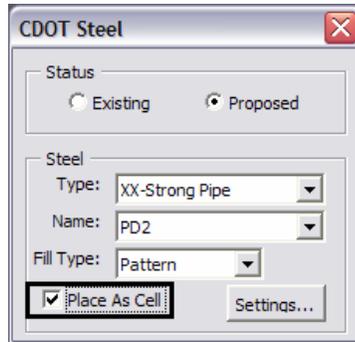


5. Next select the Fill Type for the element from the drop-down list. The Pattern fill type will use the CDOT standard steel pattern cell.

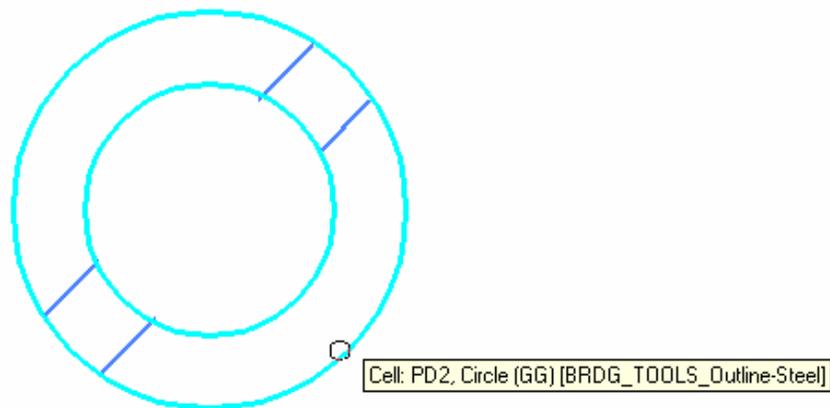


CDOT Steel.pdf

- The steel components can be placed as cell elements by selecting the **Place As Cell** checkbox. When placed as a cell the cell name is set to the value in the **Name** drop-down.

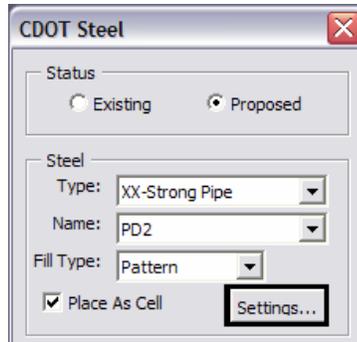


- To place the structure with these settings left-click the mouse at the desired location.
- Another change you will notice is that the patterning

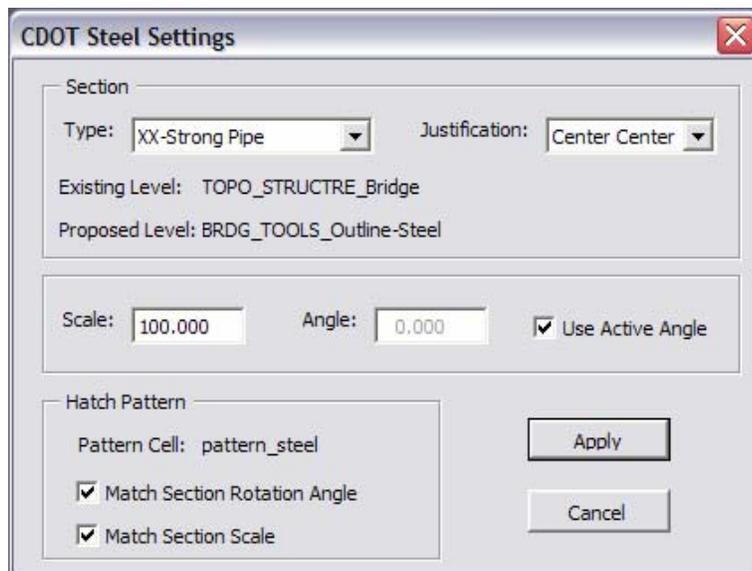


Changing settings

9. To change the placement settings click on the *Settings* button on the CDOT Steel dialog



10. The CDOT Steel Settings dialog allows for adjusting placement scale and rotation values as well as the placement justification for each section type. Unlike the main CDOT Steel dialog you must click on the *Apply* button in the settings dialog for the changes to take affect.



CDOT Steel.pdf

11. To change the placement justification for a type of section select the *Type* from the drop-down list, then select the desired *Justification*

CDOT Steel Settings

Section

Type: XX-Strong Pipe Justification: Center Center

Existing Level: TOPO_STRUCTURE_Bridge

Proposed Level: BRDG_TOOLS_Outline-Steel

Scale: 100.000 Angle: 0.000 Use Active Angle

Hatch Pattern

Pattern Cell: pattern_steel

Match Section Rotation Angle

Match Section Scale

Apply

Cancel

12. To change the size of the section, modify the *Scale* value.

CDOT Steel Settings

Section

Type: XX-Strong Pipe Justification: Center Center

Existing Level: TOPO_STRUCTURE_Bridge

Proposed Level: BRDG_TOOLS_Outline-Steel

Scale: 100.000 Angle: 0.000 Use Active Angle

Hatch Pattern

Pattern Cell: pattern_steel

Match Section Rotation Angle

Match Section Scale

Apply

Cancel

CDOT Steel.pdf

13. To change the placement angle to something other than the active angle setting uncheck the Use Active Angle checkbox and enter a new rotation angle.

CDOT Steel Settings

Section

Type: XX-Strong Pipe Justification: Center Center

Existing Level: TOPO_STRUCTURE_Bridge

Proposed Level: BRDG_TOOLS_Outline-Steel

Scale: 100.000 Angle: 45 Use Active Angle

Hatch Pattern

Pattern Cell: pattern_steel

Match Section Rotation Angle

Match Section Scale

Apply

Cancel

14. To vary the hatch pattern angle and/or scale independently of the section values uncheck the appropriate Match Section checkboxes. With these boxes unchecked patterning will use the active design file settings.

CDOT Steel Settings

Section

Type: XX-Strong Pipe Justification: Center Center

Existing Level: TOPO_STRUCTURE_Bridge

Proposed Level: BRDG_TOOLS_Outline-Steel

Scale: 100.000 Angle: 45 Use Active Angle

Hatch Pattern

Pattern Cell: pattern_steel

Match Section Rotation Angle

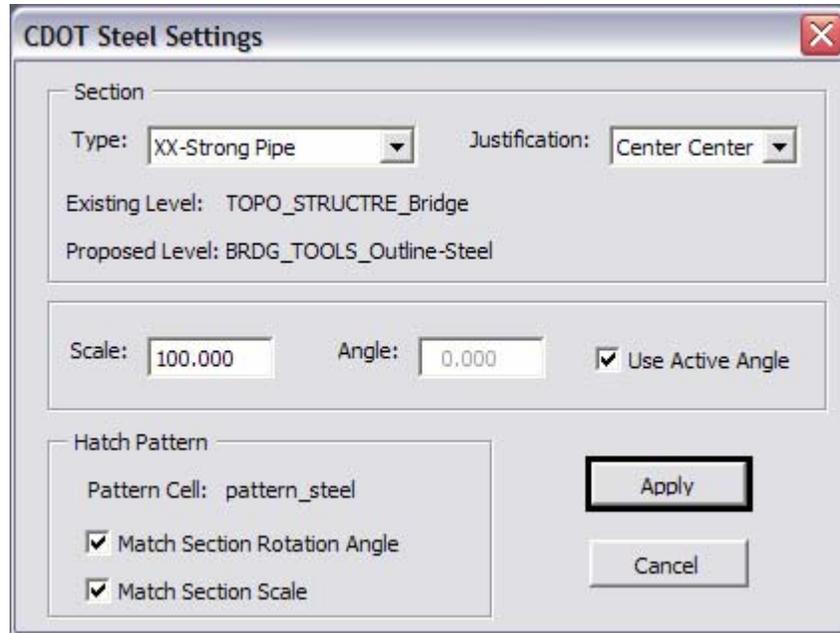
Match Section Scale

Apply

Cancel

CDOT Steel.pdf

15. When the settings have been changed to the desired values click on the Apply button to save the settings.



The image shows a software dialog box titled "CDOT Steel Settings". It contains several sections for configuring steel settings:

- Section:** Includes a "Type" dropdown menu set to "XX-Strong Pipe" and a "Justification" dropdown menu set to "Center Center".
- Existing Level:** Set to "TOPO_STRUCTURE_Bridge".
- Proposed Level:** Set to "BRDG_TOOLS_Outline-Steel".
- Scale:** A text input field containing "100.000".
- Angle:** A text input field containing "0.000".
- Use Active Angle:** A checked checkbox.
- Hatch Pattern:** Includes a "Pattern Cell" set to "pattern_steel", and two checked checkboxes: "Match Section Rotation Angle" and "Match Section Scale".

At the bottom right of the dialog box, there are two buttons: "Apply" and "Cancel". The "Apply" button is highlighted with a black border.