

Managing Cross-Section Labels in AutoCAD Civil 3D with Live Corridors

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Class summary

This class will teach you all the tricks for creating and maintaining intelligent, dynamic cross-section labels.

You'll learn how to keep cross-section labels readable and live from an entire corridor all the way down to a single custom label.

Key learning objectives

At the end of this class, you will:

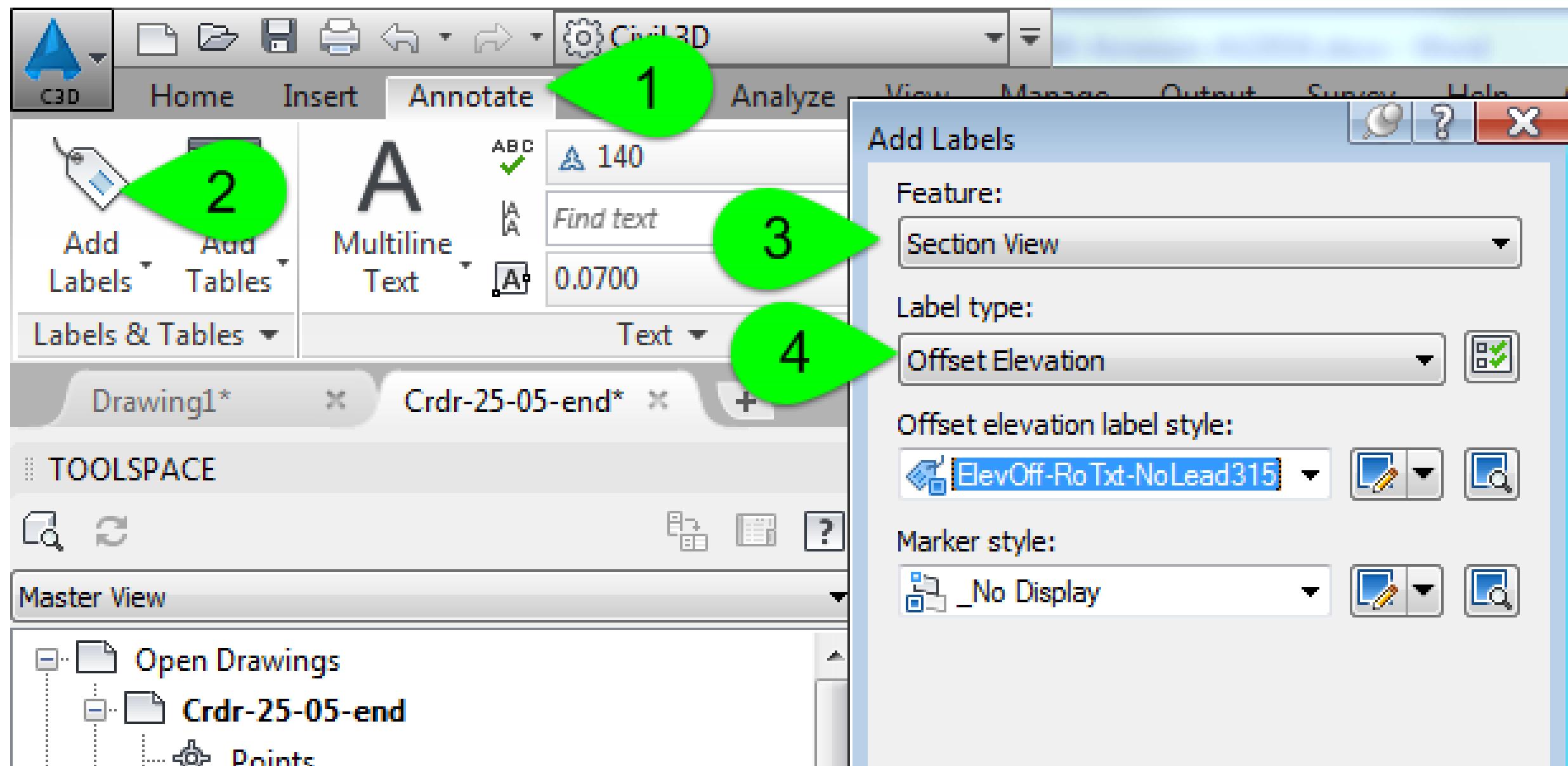
- Know the difference between automatic and manual labels
- Know the interaction between assemblies, corridors, and code set styles
- Know multiple methods for managing automatic labels in section-view groups
- Know how to create and edit manual section view labels

Automatic and manual labels

Auto section view labels = Code set styles

- Code set style
 - Marker style/marker label style
 - Link style/link label style
 - Shape style/shape label style

Manual section view labels

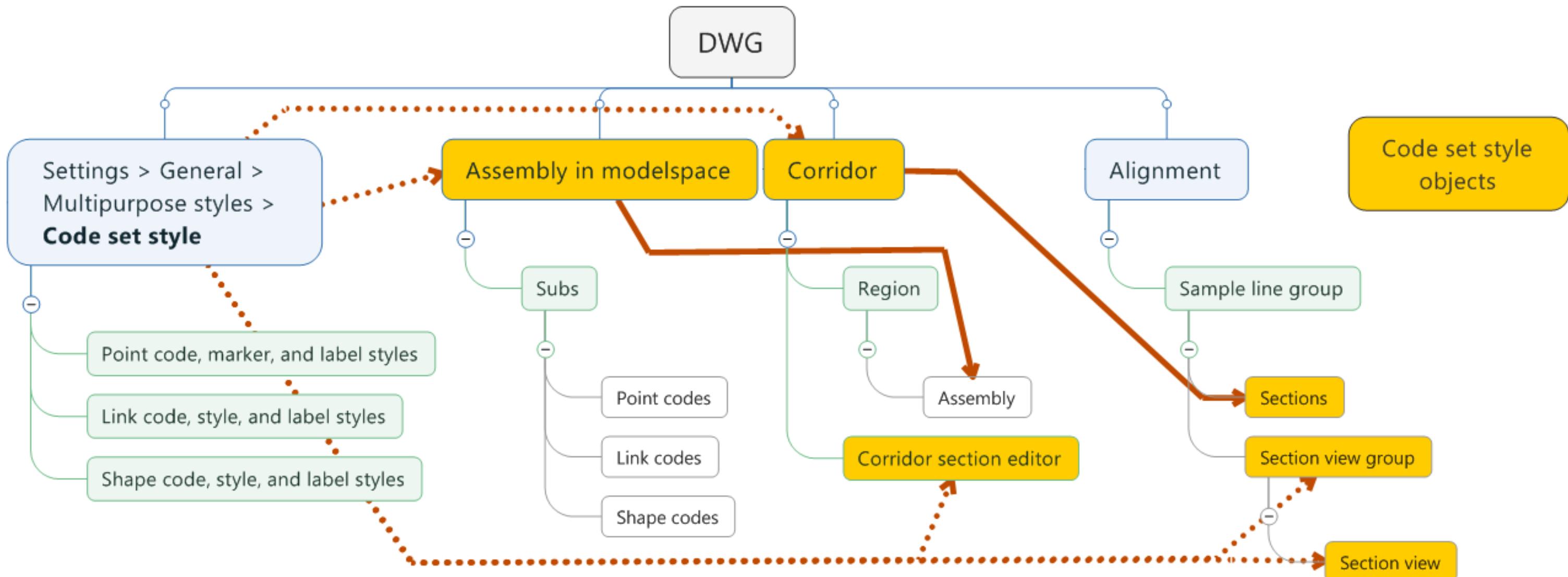


Interaction between assemblies, corridors, and code set styles

Subassembly point codes > Assemblies > Corridor > Section View Group

- Subassemblies contain point codes
- Assemblies aggregate subs and are inserted into corridors
- Assemblies are inserted into corridors by baseline (alignment) and region (station range)
- Corridors are sampled into Section View Groups

Code set style: the Rosetta Stone of 3D design

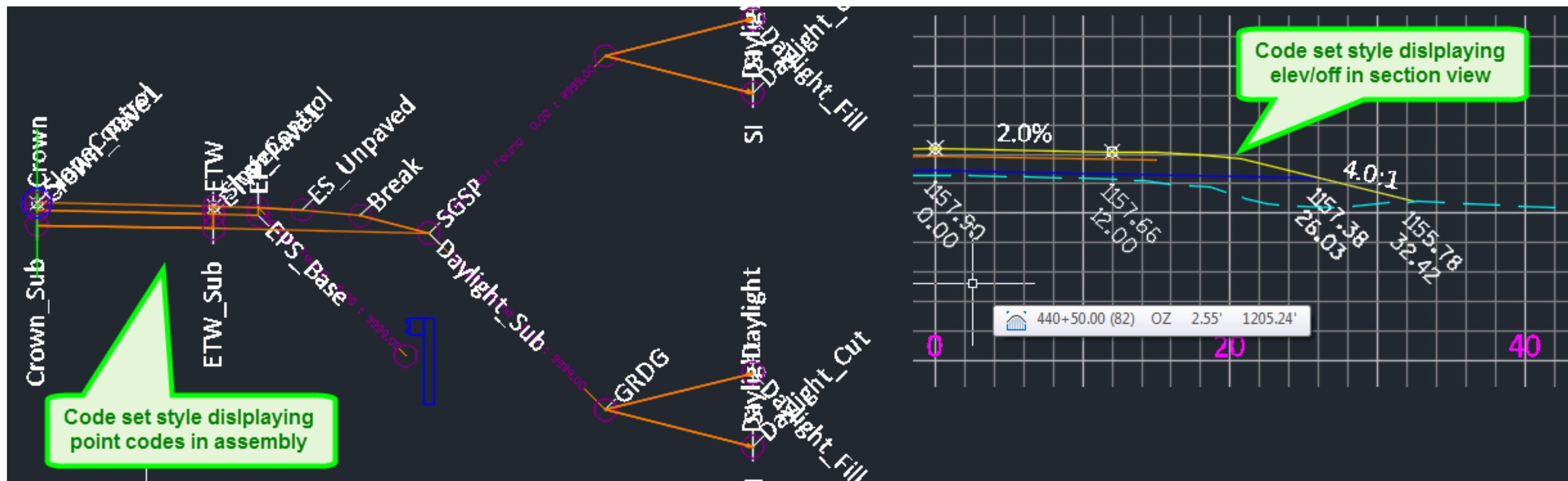


Code set style best practices

- Have all the possible styles you may want
- Have point codes that are specific for adding labels when needed
- If you are adding the same styles again and again, add them to your template
- View point/link codes in design. View elev/off and grades in sheets

Point, link, shape codes (design vs sheets)

- Point codes/link codes display in design, elevation/offset and slopes in cross-sections



Multiple methods for managing automatic labels in section-view groups

Create modified code set style to apply to section view group

Good method for:

- Creating a completely different look for different scenarios (urban vs rural, staged vs ultimate)
- Creating an option to switch from standard point code labeling to only label type point codes

Add, remove, change marker label styles in Code Set Style

Good method for:

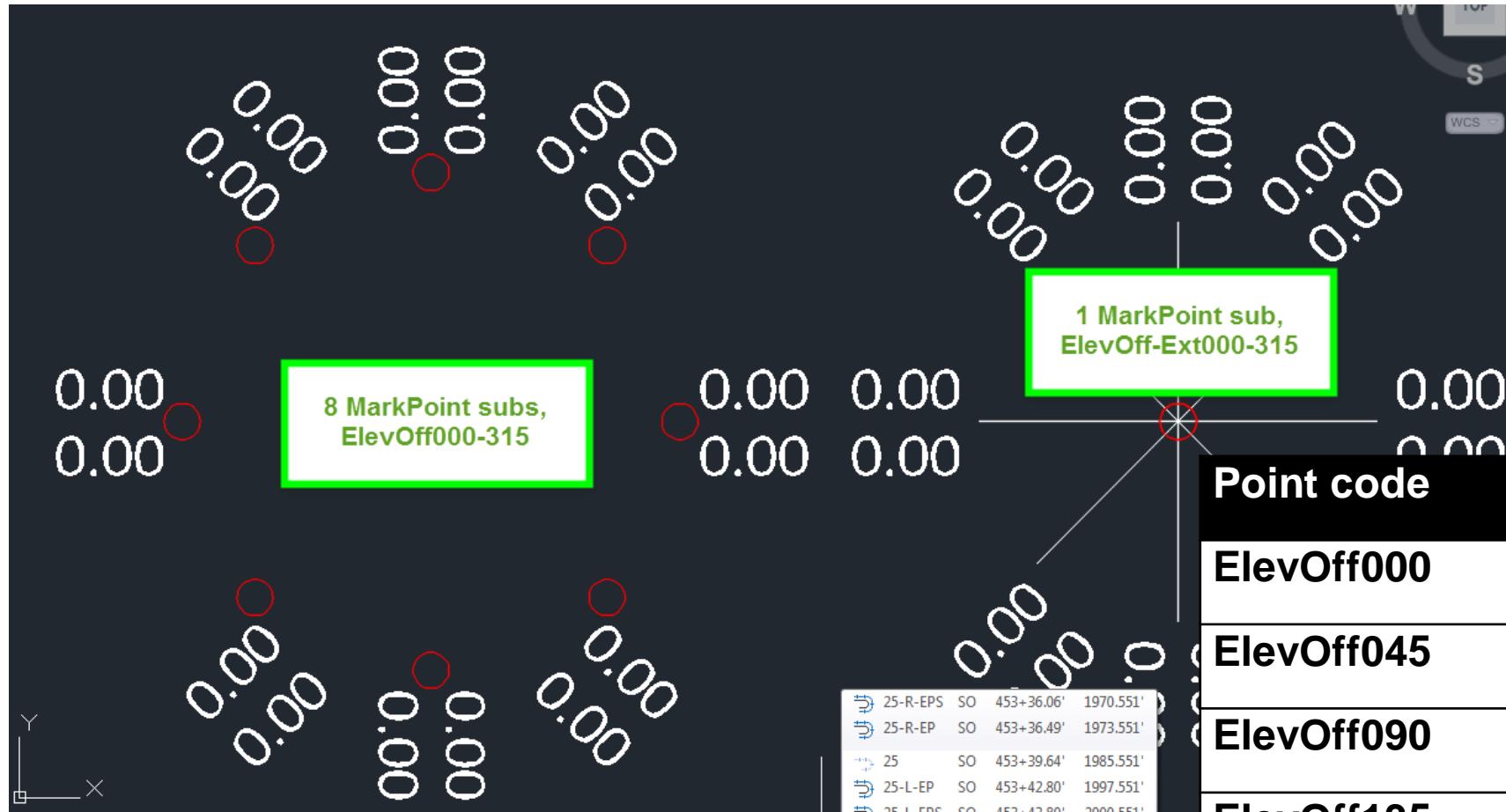
- Making changes to specific point codes across an entire section view group or selected section views

Custom point codes and marker label styles

Good method for:

- Changing the layout of an elevation/offset label for a point code or codes within an entire assembly.
- Making a modification to a code set style that you want to apply to multiple cross sections

Sample selection of Elev/Off point codes, markers, and labels

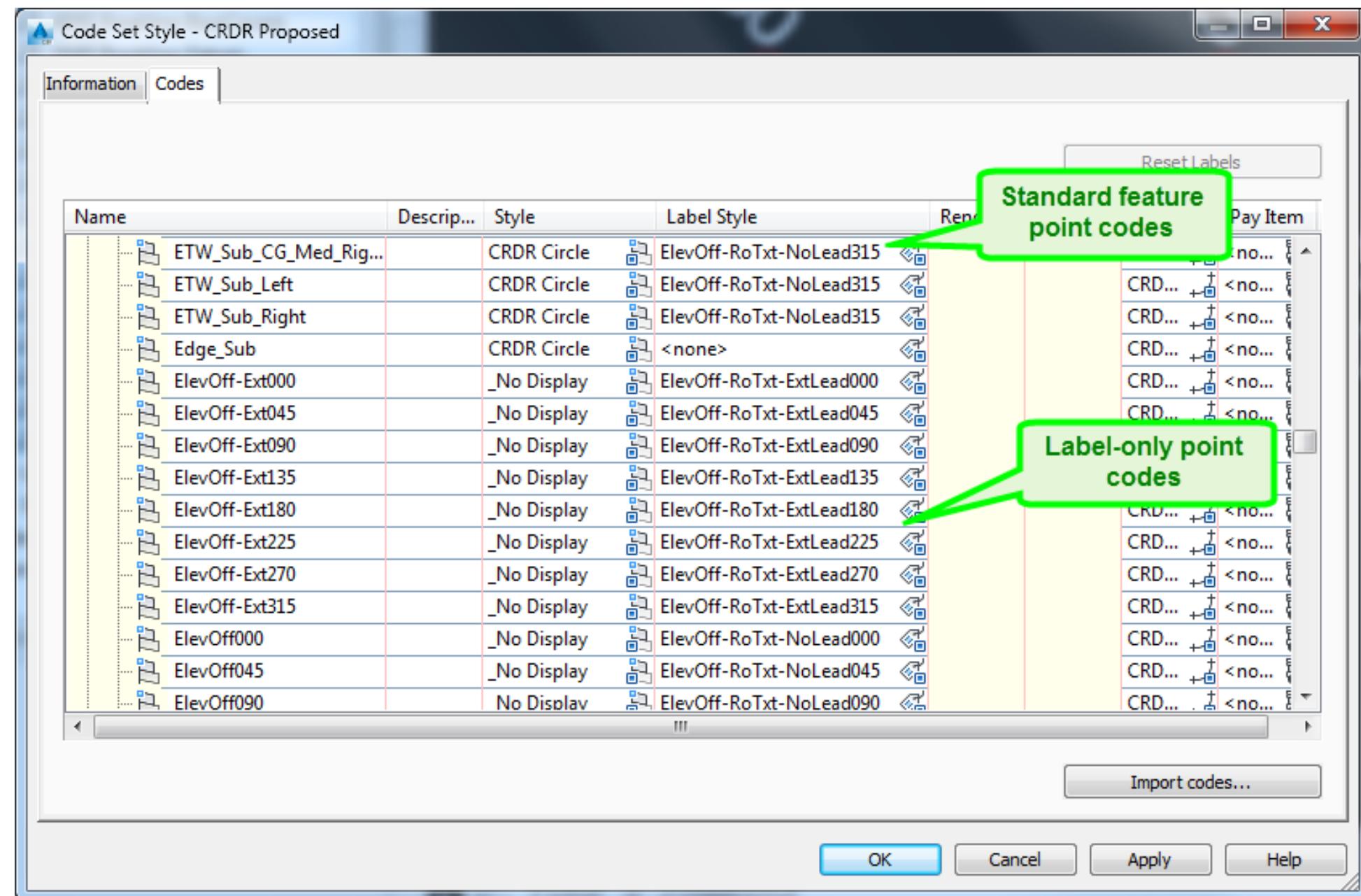


| Point code | Regular label style | Extended label style |
|------------|-------------------------|--------------------------|
| ElevOff000 | ElevOff-RoTxt-NoLead000 | ElevOff-RoTxt-ExtLead000 |
| ElevOff045 | ElevOff-RoTxt-NoLead045 | ElevOff-RoTxt-ExtLead045 |
| ElevOff090 | ElevOff-RoTxt-NoLead090 | ElevOff-RoTxt-ExtLead090 |
| ElevOff135 | ElevOff-RoTxt-NoLead135 | ElevOff-RoTxt-ExtLead135 |
| ElevOff180 | ElevOff-RoTxt-NoLead180 | ElevOff-RoTxt-ExtLead180 |
| ElevOff215 | ElevOff-RoTxt-NoLead225 | ElevOff-RoTxt-ExtLead225 |
| ElevOff270 | ElevOff-RoTxt-NoLead270 | ElevOff-RoTxt-ExtLead270 |
| ElevOff315 | ElevOff-RoTxt-NoLead315 | ElevOff-RoTxt-ExtLead315 |

Corridor codes: data, label, or both

- Corridor codes are often used in both modes.
Not necessary
- Point and link codes can be developed for label-only purposes
- Combine this with multiple codes per point and
MarkPoint subs for super-mega-combo labeling!

Label-only point codes



Options for custom codes

- Changing point codes
 - Needs to be done in the file that contains the assemblies in modelspace (corridor file)
- Changing marker label styles
 - Needs to be done in the file containing cross-sections
- Add a MarkPoint sub with label-only point code

MarkPoint sub with label-only point codes

This method is good for:

- Placing elevation/offset labels at points in assemblies that do not have point codes assigned to them.
- Providing a method to label the same point code on the left and right sides differently.
- **Absolute, total label control!!!**

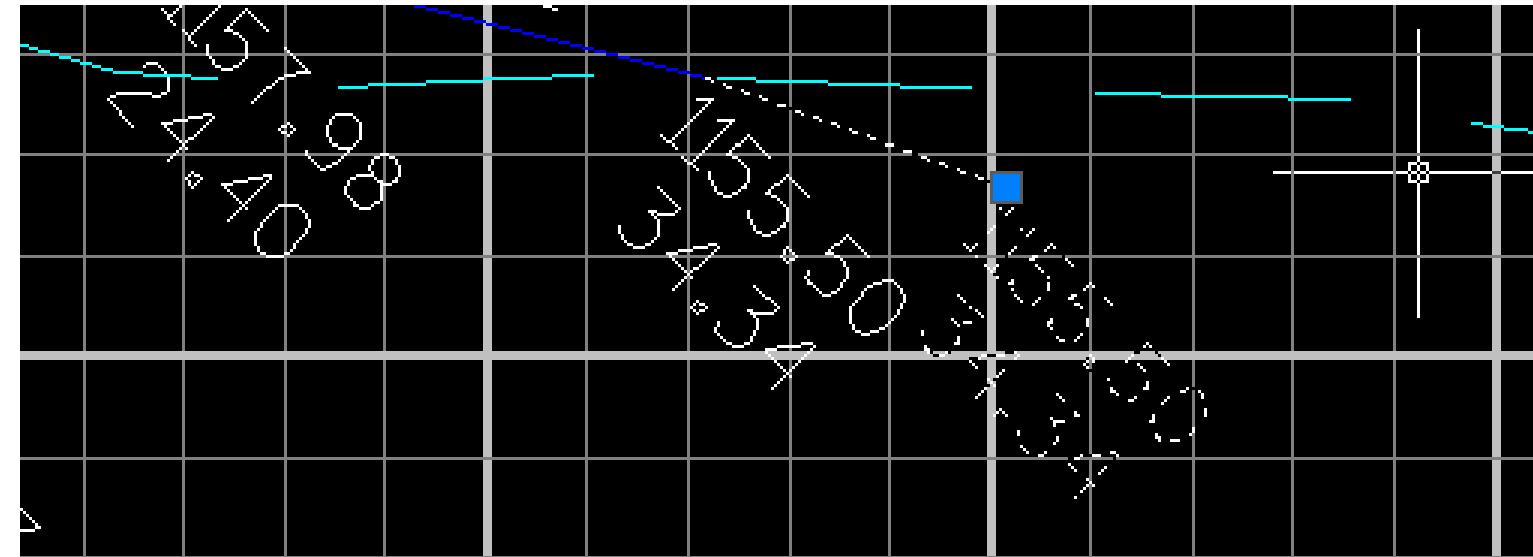
Modifying individual automatic labels in a section view

This method is good:

- If only a few labels need to be modified in a section view group. If more than 10-20 labels need to be modified in the same way, methods that can modify multiple labels at once should be considered

Dragging an individual automatic label

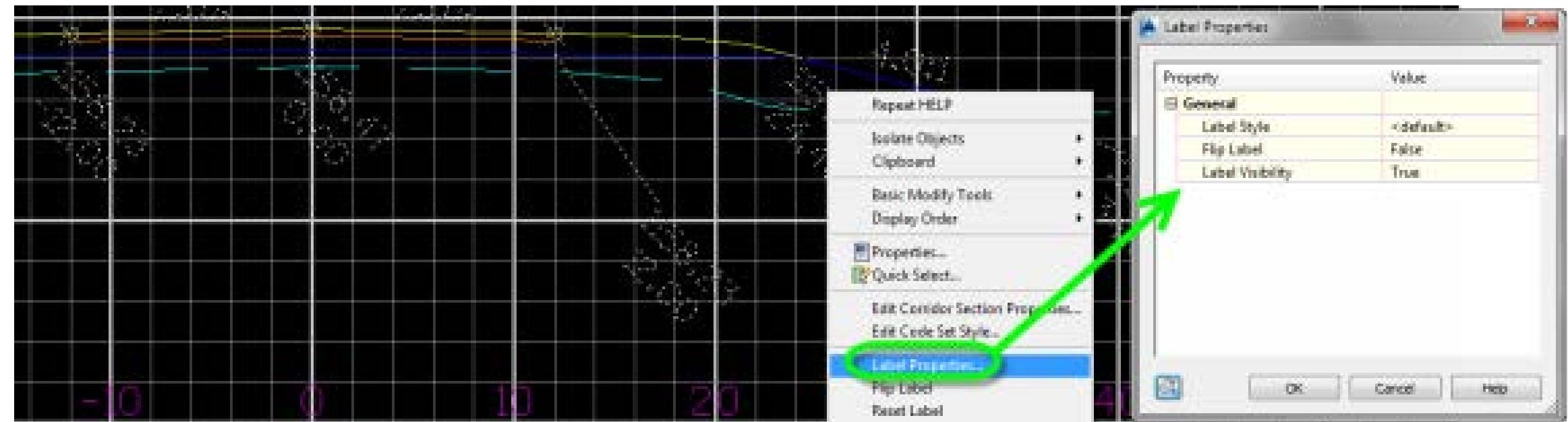
- A single label can be selected with **Ctrl+Click**
- A blue grip will appear that can be dragged
- **Watch out for osnaps and grid! Shift+Right click** for temporary override



Change a label (style, visibility, flip)

Different selection method than dragging ☺

- Click on the entire label set to select it
- Right-click over the label to be changed



WARNING! – Turning labels invisible

Once a label is made invisible, it cannot be selected for editing. To retrieve the label:

- Click the section view labels to select them
- **Right-click > Edit Corridor Section Properties... > Codes tab > Reset Labels button**
- This will reset all of the labels for the section view

Create and edit manual section view labels

Create manual section view label

- **Select section view > Contextual ribbon > Add view labels**
- Manual labels can be dragged and changed with grips
- Manual labels can be moved. The diamond grip moves the point being labeled. The square grip drags and rotates the label
- **NOT dynamic to corridor**

**Filling out class
surveys is awesome!!!**



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