How to Place Resilient Nodes in ORD

This placement method is recommended because it addresses issues with boxes moving to unintended locations due to updates in the roadway corridor model. Additionally, it ensures the correct longitudinal slope is used for calculations.

Setup:

Make sure Persist Snap is Turned Off



Go to Civil Accudraw and select Station Offset



*Civil Accudraw Calibration can be done now or later when placing node. To calibrate during set up to use the alignment station and offset:

Drawing \rightarrow place line \rightarrow tab to offset and enter the letter "O" \rightarrow select the alignment.



Place Node:

Go to the Drainage and Utility Workflow and select Place Node



Select Feature Definition

| Place Node | ▼ ‡ × |
|---|---|
| Masonry Structures (DSS) | * |
| Feature | ^ |
| Feature Definition | CB 840.03_G 48in or Less |
| Name Prefix | i la |
| Elevation | Headwalls Node |
| Elevation is the Invert | |
| Baseline Reference | B→IIII Adjust □→IIII Catch Basin ⊕→IIII OTCB |
| Baseline Reference Locate Baseline Reference | Special Design-Min Depth CB 840.03 E Sag 48in or Less CB 840.03 E Sag 54in or Greater CB 840.03 E Mag class |
| Rotation | CB 840.03_F 54in or Greater |
| Rotation Mode | CB 840.03_G 48in or Less |

Name Structure and Make sure Baseline Refence is Checked

| Place Node | | - ₽ × |
|---------------------------|----------------------------|--------------|
| Masonry Structures (DSS) | * | ^ |
| Feature | ^ | |
| Feature Definition | CB 840.03_G 48in or Less 🗸 | |
| Name Prefix | 0401 | |
| Elevation | * | |
| Elevation is the Invert | | |
| Elevation | 801.5520 | |
| Vertical Offset | -0.1700 | |
| Baseline Reference | * | |
| Baseline Reference | | |
| Locate Baseline Reference | ~ | |

Select Reference Element for Node Elevation → Gutter Flow Line

In the heads up Display, "Select Reference Element for Node Elevation" Select Gutter flow Line which will be label either **+GFL** for right side of alignment or **-GFL** for left side of the alignment



Define "Elevation: Vertical Offset" as "-0.17": This accounts for Gutter Depression

Note: if calibration wasn't completed earlier, it can be done now:

*Tab till you get to "Offset" \rightarrow Enter the letter "**O**": This allows you to define the alignment to input your boxes with station and offset. This could be done during this step or in the initial setup.



After entering "O" in the offset: you will be prompted to select a reference →**Roadway Alignment**



You will now be able to place a node with station and offset. You can either type in the station and offset or you can hover over the area where you would like to place a node and hit enter twice to lock in the station offset. Once the station and offset are locked Left Click to accept.

NOTE: If your station or offset are locked then you can hit the END on your keyboard to unlock.



Locate Baseline Reference → Roadway Alignment

Once you click to accept placement, "Locate Baseline Reference" select the Roadway Alignment



Select Rotation Mode→ Relative to Alignment



Click to accept the rotation mode relative to alignment and select Gutter Flow Line when prompted.



Rotational angle can be keyed in as 0 or 180 degrees depending on which side of the road the node is located. If the arrow is pointing towards the alignment, then the correct rotation was used.