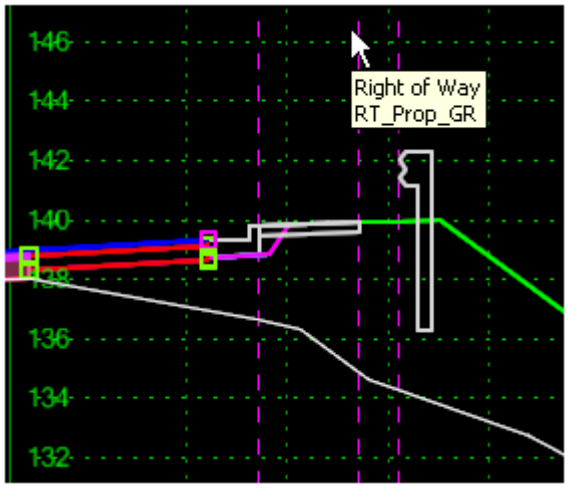
2_24 GUARDRAIL PRIORITIES – SHLD/C&G

Question:

Corridor Modeling is ignoring the Target G/R and placing the Warrant G/R. Why can I not find a way to override the Warrant in favor of the Target G/R?



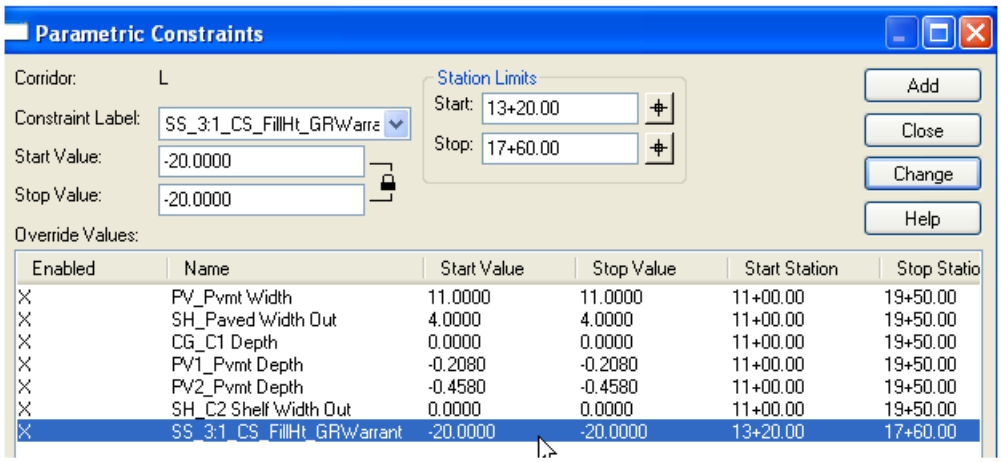
Answer:

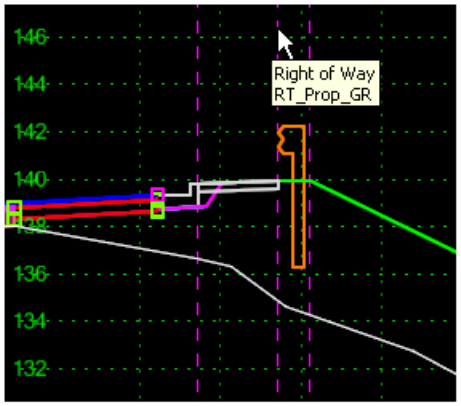
Because the way they were design, guardrail for shoulder sections differs from guardrail for curb and gutter sections. For shoulder sections, guardrail warrant from fill height/slope and guardrail targeting graphics each has their own set of cut and fill end conditions. Target guardrail in this case is processed first before the warrant.

For curb and gutter sections, both types of guardrail shared the same berm and the same single set of end conditions (catch slopes). Warrant guardrail is processed first because the existing ground is the primary surface for the end conditions/catch slopes to target. If a guardrail graphic is present in the area of the berm, then it will only be displayed if the warrant guardrail is NOT displayed (display rule). The warrant guardrail component is the direct child (descendant) of the end conditions (parent components). This is the reason why the target (graphic) guardrail cannot override the warrant guardrail in the order they are processed, by default.

One way to circumvent this situation (hopefully it is less common) is to prevent the catch slopes from solving for a successful guardrail warrant condition in the first place. Increase the fill height for guardrail warrant of the catch slopes from 10’ to something like 20’ in the areas of the guardrail targets by using the parametric constraint label “SS_3:1_CS_FillHt_GRWarrant”.

Note that if the sidewalk graphic is located toward the inside of the curb (outside the limits of the green grass berm) or a 6” minimum offset from the sidewalk outer edge to the berm break point cannot be maintained, then the sidewalk component will not display.





Note that catch slopes for up to 35 MPH design (no guardrail warrant) and over 35 MPH design (with guardrail warrant) are both in our standard library.