SPANISH FORK HIGHWAY - COVERED BRIDGE ROAD INTERCETION

PROBLEM STATEMENT

Turns onto mountain highways often unprotected. This can lead to more accidents. The interaction between US-6 and Covered bridge road does not have a left turn lane. Our goal was to design a safer way for cars on the covered bridge road to turn onto US-6

TECHNICAL CONSIDERATIONS

Several factor influence what solution will work the best, including: price, how long construction will take, and how disruptive that construction and the final solution will be to the surrounding environment. All of these factors influenced our choice.

EXISTING ROAD



Image courtesy of google maps

PROPOSED SOLUTIONS

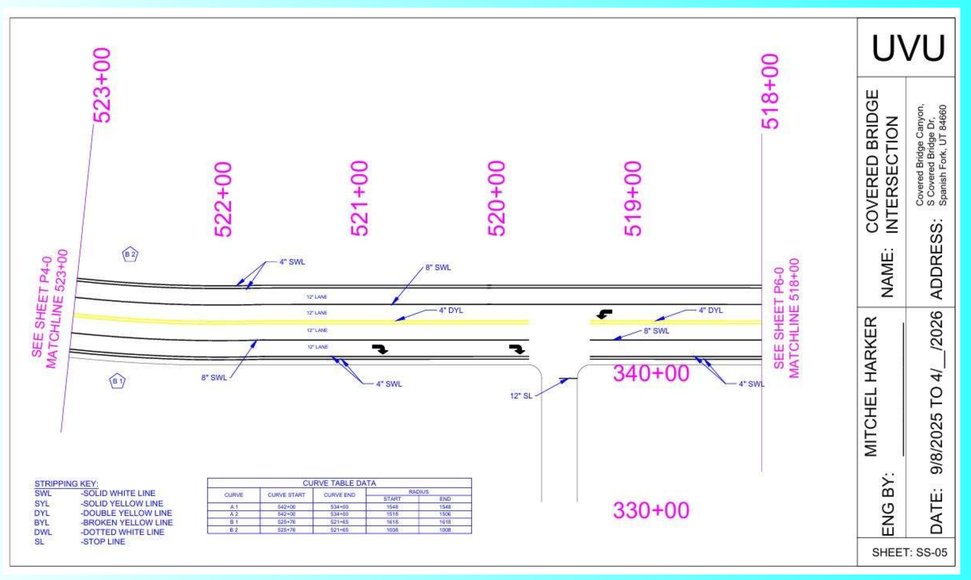
The first part of the project involved generating ideas on how to allow a safer left turn.

- Acceleration lane
- Overpass
- Signalized interectison

FULL VIEW OF ROAD EXPANSION



INTERCTION CUT SHEET



SOLUTION CHOSEN

Using the factors discussed above, and using an analytical hierarchy process known as pairwise comparison, the left turn lane came out as the best solution. Costing around as much as signalizing the interaction, it pulls head in its simplicity. Once we had decided upon the solution, we designed it. This involved expanding the existing road and using the pullout on the north side of the road. The picture above shows the full drawing of the new road lines needed for an acceleration lane and the picture to the left shows a cut sheet of the intersections.