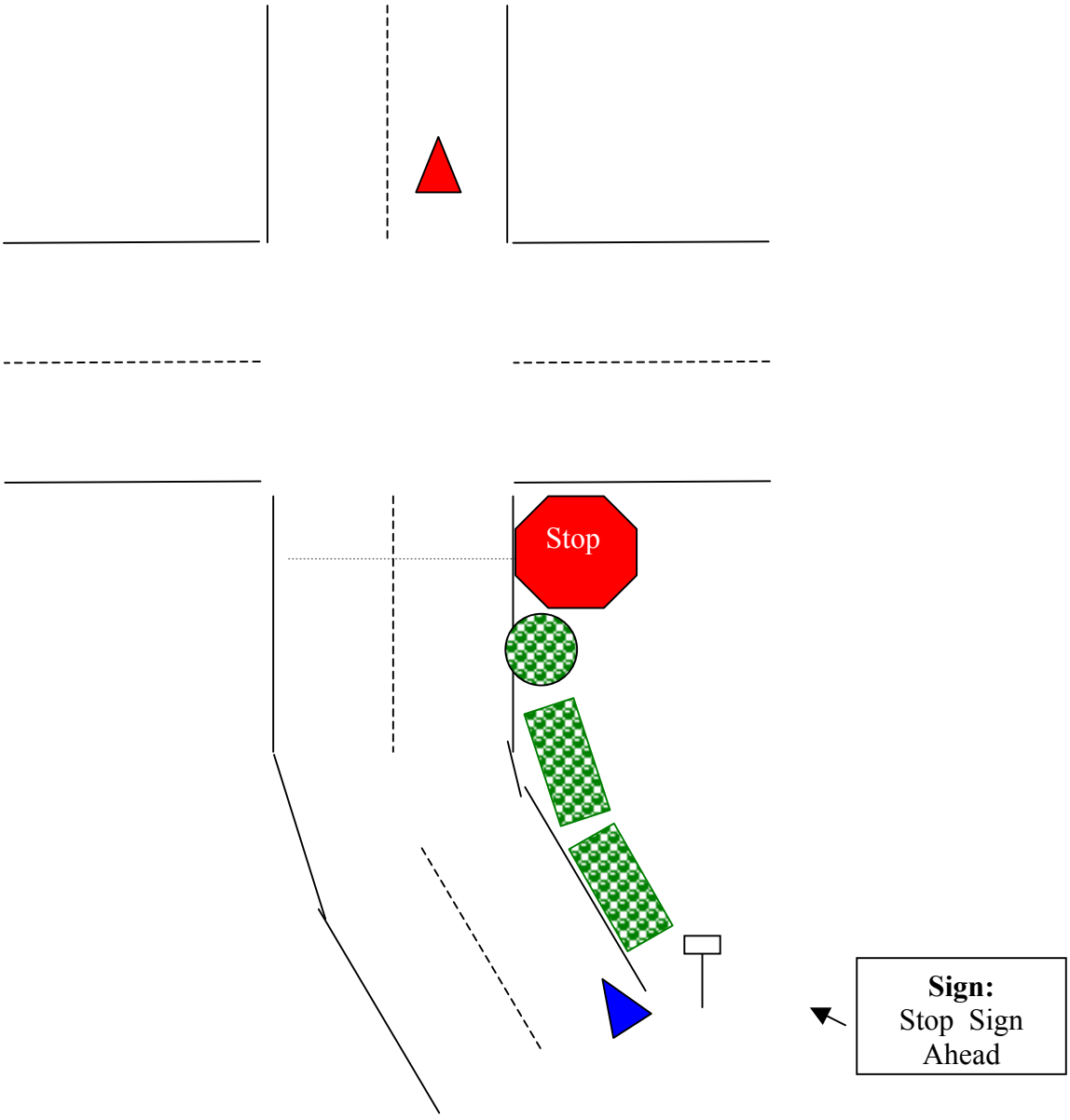
CURVED STOP AHEAD – NV:4B

In this scenario, a similar situation will be evaluated. In particular, an attempt will be made to determine whether a driver will predict the presence of a stop sign. As in the above scenario, the participant driver will be given an indication that a regulatory sign will soon appear. Specifically, a sign with the legend, STOP SIGN AHEAD, is placed on the right side of a road immediately before the road curves to the right (Figure 1). However, the view of the stop sign placed downstream is obscured by a curve at first and then vegetation right in front of it. The stop line itself is well worn (almost the color of the pavement surface). At the start of the scenario, a lead vehicle (red) is in front of the driver (blue). The lead vehicle accelerates around the curve and is not visible as the participant driver rounds the curve. The stop sign is some distance beyond the end of the curve, enough for the driver to begin accelerating if he or she has forgotten about the indication that a stop sign is ahead. The lead vehicle is just beyond the stop sign as the stop sign first comes into view for the driver. The lead vehicle accelerates away from the participant driver as it moves through the intersection. This may distract the participant driver and cause him or her to be more likely to ignore the actual stop sign.

Figure 1: NV: 4B



Note. This is also a scenario that was used in the AAA research (Fisher et al., in press). But there the stop sign was positioned at the very end of the curve, rather than some time after the curve. There was no lead vehicle distracting the driver. And the stop sign was not hidden by vegetation. Thus, perhaps it is not surprising that all drivers slowed as they rounded the curve and no differences. Here, drivers will have the opportunity after the curve to accelerate.

Material Risks. The stop sign will be located at a four way intersection, with a road approaching diagonally from the left, which is obscured from the view of the participant driver. When the risk materializes, a car will come from the four way intersection and

possibly collide with the participant driver. When the risk does not materialize, no such car will be present in the scenario.

Dependent Variables. Measures of vehicle and driver behavior will be included when first the driver applies the brakes and how quickly the driver comes to a stop. Note that these behaviors are being measured because it is assumed that they are indices of safe behavior. This is not known for sure, here or elsewhere. Analyses of eye movements will be undertaken which yield summary measures such as when first a driver fixates the stop sign and, perhaps, when first a driver fixates the vegetation hiding the stop sign. Note that here and elsewhere when summary measures of eye movements are used, the relationship to actual safe driving is at least two steps removed. It is arguably the case that a driver that recognizes all of the risky elements in a scenario and recognizes them earlier will driver more safely. Of course, this is not necessarily true.