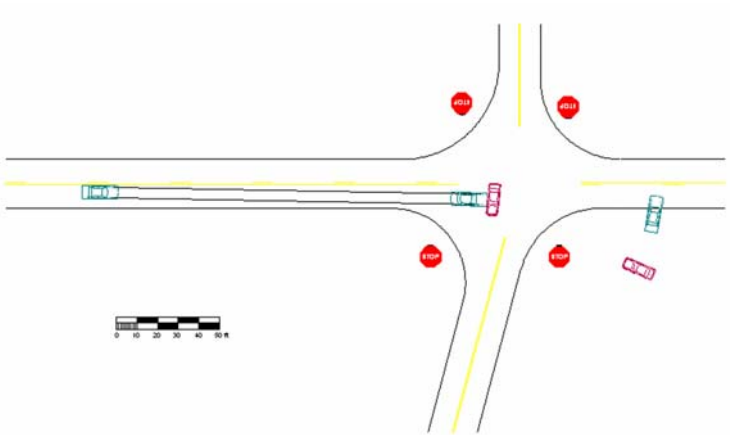

When CAD (Computer Aided Drawing) programs were first developed, they came on turnkey (dedicated, meaning that the machine could perform no other function) machines and cost in excess of $40,000. Now, AutoCAD, the world's leading CAD program, costs considerably less than that and runs on virtually any IBM clone with sufficient hardware resources. There are many other CAD programs now available, many of which are specifically designed to allow a user to quickly and easily create an accurate diagram of a scene. A program called Crash Zone is one such program which was developed for the motor-vehicle accident investigation and reconstruction community. The drawing to the left was prepared in Crash Zone, exported as a bitmap, and placed in this document, which was created in Microsoft PowerPoint. This is from an actual case, but most labeling has been removed from the drawing in this newsletter to preserve the confidentiality of that case.

Crash Zone allows me to use my computer to create an exact diagram of the accident scene and print it at a convenient scale on a medium of my choice. In about the same amount of time I once took to create a scaled scene diagram from which I could begin to reconstruct a collision using a drawing board and conventional drafting equipment, which diagram was generally not of presentation quality, I can prepare a scaled diagram in color, print it to a convenient scale, use that print to reconstruct the collision, then include a copy of that diagram with my report. This program provides me with extensive capabilities to draw lines and objects in color and with different characteristics to suit the requirements. By placing a scale on the diagram, as is present in the lower left quadrant of this drawing, any print is always accurately presented to scale, regardless of the size of the paper. The drawing shown here was printed on 8.5 by 14 paper and was presented with the associated report.

This program, as with most (probably all) CAD programs, creates an electronic image in "real" size. In other words, lanes which are 12 feet wide in reality are twelve feet wide in the "drawing." When prepared for printing, however, the real-life-sized image is presented at a scale which is appropriate for the size of the paper selected or is presented at a scale of the user's choosing. Regardless of the scale chosen for printing, a correctly drawn site will be correctly and accurately presented, whether a 300-foot stretch of road is compacted to an 8.5-by-11-inch sheet of paper or printed on a three-foot-long sheet of vellum.

I spent a week in Biloxi, Mississippi, recently for the combined Southeast Accident Reconstruction Society/South Carolina Association of Reconstruction Specialists (SeARS/SCARS) Annual Conference. Among other activities, Rusty Haight once again drove the bullet car for a staged collision. Details of both cars were thoroughly documented before the collision, and their post-impact trajectories were documented by high-speed photography and by scene mapping. One of the primary purposes of conducting staged collisions is to demonstrate that the methods used by the accident reconstruction community to calculate vehicle speeds at impact (and at other times) are valid. Once again, post-impact analysis of the collision data revealed calculated numbers in agreement with the known collision speed of the bullet vehicle. And Rusty was unharmed by the collision at approximately 50 mph, protected by an air bag and the car's three-point safety harness.

If you would like more information on this topic, please write your name plus your telephone number or email address:_____

Or, you may contact me directly with your questions, by the method of your choosing.

If you have any comments, questions, or suggestions regarding content of this or future newsletters, I welcome them. You may use this form to comment by filling in the lines and mailing it, or, as always, you are welcome to contact me by any method of your convenience:_____