When I was growing up, my family and I often took driving vacations—either up to Canada or up/down the East Coast. Today, despite the low-cost airfares available, my wife and I still find our Mazda 626 (though I still think a minivan would have been more practical) to be our preferred vacation vehicle. Our latest trip was a seven-state jaunt down to Charleston—an incredibly beautiful and fascinating city that I heartily recommend to everyone.

One major difference between car trips today and trips 30 or 40 years ago, however, is the seemingly overwhelming sameness. The signs for McDonalds and Quality Inns seem to repeat every three or four miles; our regional differences seem to be disappearing almost as quickly as reasonably priced professional sporting events.

I keep emphasizing “seem” because in reality there are still plenty of differences. Granted, the visibility of the crossing between Illinois and Indiana would be non-existent except for posted welcoming signs (the roads are equally marred by potholes in both states). But as I went south and east, notable differences arose. The landscape became more hilly, the plantings more lush (North Carolina’s DOT does an especially good job with its plantings of wildflowers on the side of the interstate highway) and the roads smoother.

Perhaps the greatest difference, though, is between Kentucky and Tennessee. Driving through Kentucky, I was struck by the surfeit of concrete overpasses, a situation that reversed to emphasize steel bridges in Tennessee.

Tennessee’s steel bridges are noteworthy for another reason besides quantity. That state’s DOT has long emphasized quality and good design. In addition to its use of weathering steel, Tennessee should be commended for its use of integral, cast-in-place, post-tensioned concrete bent caps. This innovative technique allows steel girders to pass directly through the pier’s cap, rather than over the top of the cap in the traditional manner. As a result, the design can overcome vertical clearance restrictions while avoiding extreme skewers. In addition, integral abutments significantly reduce seismic loading on the piers, while eliminating the possibility of bearing seat loss at the ends of the bridge.

Not coincidentally, the topic of this month’s Bridge Crossings column, beginning on page XX, is integral abutments. I hope you find the information in Bridge Crossings useful. And if you have any ideas for future topics to be covered in Bridge Crossings, please drop me a note at Modern Steel Construction, One East Wacker Dr., Suite 3100, Chicago, IL 60601-2001 or email me at melnick@aiscmail.com.

Scott Melnick
Editor & Publisher