Project Title: Laboratory Evaluation of Thin Asphalt Overlays for Pavement Preservation in Nevada

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Abstract:
It is clear that increasing demands on the Nevada highway system will occur in parallel with reduced resources. It is critical for NDOT to implement technologies that enable the stretching of available dollars. The application of thin overlays has a strong probability of extensively improving the sustainability and safety of Nevada roadway network with a modest increase in construction price. While the expected specifications of designing and constructing thin overlay mixtures will promote extended overlay life, improved friction resistance, and improved durability, it will be critical to monitor the long-term performance of the thin overlay. It will be possible to estimate the initial cost of thin overlays as well as long-term life cycle cost analysis in order to establish a cost-to-benefit ratio associated with thin overlay mixtures. Such cost analysis results will reveal the benefits and limitations of such mixtures in comparison to its associated cost. The recommendations of this study are tremendously needed to assist NDOT materials, construction, and maintenance groups to evaluate their future usage of thin overlay mixtures.