

HR-259 Low Cost Fly Ash-Sand Stabilized Roadways

Key Words: Soil Stabilization, Fly ash, Sand

ABSTRACT

The objectives of this research were to develop a low cost fly ash-sand stabilized roadway and to correlate field performance with pavement design assumptions on a county road heavily trafficked by trucks hauling grain. The road was constructed during the summer of 1984. Three test sections comprised of different base thicknesses were incorporated in the roadway and were tested for compressive strength, structural rating, and rut depth.

Annual crack surveys showed no appreciable difference in transverse cracking between the test sections and little to no rutting. The sand base drainage characteristics beneath the roadway may have contributed to the satisfactory performance of the test sections. This project indicates that in spite of the inflated cost of construction due to the research nature of the work, a fly ash-sand base can be a viable alternative for roadway stabilization.