## **Coal Ash-Composites for Infrastructure Applications**

Coal ash-composites can be used in many infrastructure applications, for example, railroad ties (sleepers) and highway sound barriers. Ash-Composites are an alternative to wood, concrete and steel ties. Concrete and steel ties are both very stiff causing high vibrational noise, discomfort to the occupants and loss of durability of suspension systems. It is well known that wood suffers from splitting, high moisture absorption causing shape distortion and susceptible to fire and insects. Therefore, Ash-Composites are the best choice from safety, durability of carriages, cost and environment, and they perform like wood – without the problems of wood. The figures below shows railroad ties and the highway sound barriers that could be made of Ash-Composite.



