

**Arkansas State Highway and Transportation Department
Transportation Research Committee**

RESEARCH PROBLEM STATEMENT

DATE: 09/14/2016	PROJECT AREA: Special Projects
TITLE: Examining Cement Treated Bases and Low-Cost Overlays to Provide Overnight Truck Parking	
PROBLEM STATEMENT:	
<p>With an increase of freight transportation, it also necessitates an increase of adequate truck parking when drivers reach his/her Hours of Service (HOS). As AHTD reevaluates truck parking issues via available right-of-way (ROW), a primary goal is recognize areas suitable at minimal transformation and cost while maximizing truck parking potential. One opportunity could be reallocating/redesigning decommissioned weigh/inspection stations, and rest areas into truck parking areas. A project of this magnitude could be an expensive venture, so it is essential to institute cost-effective strategies beneficial to AHTD and the trucking industry.</p> <p>Converting underutilized areas into serviceable truck parking areas by employing Cementitious Treated Bases (CTB) with a minimum overlay, can be a low-cost solution while providing a long life, high strength parking area. These decommissioned areas may have failing granular-base pavements, with or without their old bituminous mats, which can be salvaged, strengthened, and reclaimed as soil-cement pavements; An efficient, economical way of building truck parking areas at little to no-cost to AHTD.</p>	
OBJECTIVES:	
<ol style="list-style-type: none"> 1. Complete a literature review to determine if other DOT's have accomplished similar projects for truck parking areas. 2. Determine areas where truck parking is at its greatest need and the feasibility of increasing truck parking. 3. Collect soil and analyze various cementitious treatments utilizing local granular materials, or various waste materials including, but not limited to rice hull ash, foundry sands, and screenings from quarries and gravel pits. 4. Collect and analyze soil data with minimal interference to the traveling public. 	
FORM OF RESEARCH IMPLEMENTATION:	
<p>Provide additional legal truck parking in ROW areas where truck drivers are either parking unsafe, illegally, and/or in overcrowded areas.</p> <p>Create a catalog for various soil-cement treated bases for future construction projects.</p>	
REVIEWER: Christopher McKenney	Estimated Project Duration: 24 months
PREPARED BY: Christopher McKenney	
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Standing Subcommittee
Ranking

2 / 7

Advisory Council
Ranking

7

Statement Combined with
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