

Project Description:

The primary objectives of this research effort is to develop a near-real-time laser-scanning system to rapidly classify aggregates used in highway construction. The intent is to employ this classification process to

- Quantify specific engineering properties (e.g., acid insoluble residue, soundness, LA Loss, etc.)
- Assess whether an aggregate will pass or fail a defined engineering property test
- Identify and/or quantify the presence of deleterious materials (e.g., ASR, chert, shale, reactive aggregate)
- Determine the composition of blends in stockpiled aggregate
- Determine the source of an unknown aggregate

Six states are part of this TPF program. They include: KS, MD, OK, OH, NY and NM.

Each State is supplying aggregates that will be tested and evaluated to determine the efficacy of the technology; and an AASHTO standard of Practice will be prepared as part of the effort.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

During this period additional samples were received from NY and KS. Modeling work is continuing. Several software and mechanical features were modified on the system. Work on enhancing the software are continuing.

Anticipated work next quarter:

Aggregate sample scanning of State samples will continue. Model development will continue. Plans for a technical project meeting in Albany will be initiated. The meeting will be held sometime in early December..

Significant Results:

Sufficient samples have been scanned from four states (KS, NY OH and MD)- modeling is continuing. There is a lack of adequate sample volume from Oklahoma and New Mexico at this time

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, with recommended solutions to those problems).

Minor mechanical problems continue to be encountered as well as some software bugs, These continue to be addressed on the go. We do not anticipate any significant project disruption at this time.