



Subcontracting Agreement
Prime Contract: SHRP R-21
ARA Subcontract No. 18236-Mn/DOT-00
MnDOT Contract No. T9A411

Scope of Work and Task Breakdown

MnDOT will be involved in Phase IIa, IIb, and III of the project. MnDOT's primary role is to develop plans and specifications for the construction of test cells at MnROAD, and to construct, instrument, test, monitor, collect field data, and maintain the database for the constructed test section as described below.

Task Breakdown for Phase IIa, and IIb

(Task definitions for the entire R21 team are excerpted from the FHWA SHRP2 request for proposals.)

Tasks 2 and 5

Analyze the database and identify full-scale applications that have the potential to be or are long lasting low maintenance pavement systems. For the identified full-scale applications collect information necessary to develop performance models and design procedures. Identify probable/potential failure mechanisms and influencing factors for these applications.

Tasks 3 and 6

Develop draft performance models and conduct parametric evaluations. Identify critical design parameters.

Tasks 4 and 7

Submit an interim report including the information from tasks 1, 2, 3, 5, and 6, as well as a research plan for the evaluation of the critical design parameters identified in tasks 3 and 6. This research plan may consider the construction of test sections at accelerated pavement testing facilities to validate recommendations from tasks 3 and 6.

Task Breakdown for Phase III

(Task definitions are excerpted from the FHWA SHRP2 request for proposals.)

Task 8

Refine and validate the performance models and develop design procedures following construction and evaluation of new and existing full-scale pavement test sections.

Task 9

Develop construction specifications and design guidelines for composite pavement systems considered under this research. Develop a plan for full-scale evaluation and further validation of design guidelines and specifications.

Task 10

Submit an interim report including information developed in tasks 8 and 9.

Task 11

Develop training materials to facilitate implementation of these new composite pavement systems, construction specifications, and design guidelines.

Task 12

Prepare a final report documenting the entire project.