STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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ROADWAY DESIGN UNIT
PAVEMENT DESIGN
OCT 14 2005
ALLEN, BLEVINS, SYKES, BREW, C. HOUSER, T. HOUSER, LOVERING, D. TAYLOR, GOODNIGHT, J. MOORE, C. HAIRE, SPEER, B. MOORE, THOMAS, MUMFORD, WALLS, THOMPSON
PREPARE REPLY FOR ___ SIGNATURE
F.Y.I.
REVIEW/DISCUSS WITH ___

CC: JB

MEMO TO: Art McMillan, PE
State Highway Design Engineer

FROM: Judith Corley-Lay, PhD, PE Judith Corley-Lay
State Pavement Management Engineer

SUBJECT: Pavement Design Request for Widening and New Location Process

DATE: October 13, 2005

Clark Morrison, State Pavement Design Engineer, has advised me that the Highway Design Branch has implemented a new Process for Widening and New Location Projects. In this process, a request for final pavement design will be made at the same time as the request for drainage design. On some projects, this request will occur 18 months prior to the right of way date, or 2.5 to 3 years prior to letting. (In the current process, the request for final pavement design is made approximately 1 year prior to letting.) This new process is being developed to avoid major changes in projects once the permitting process has begun.

To comply with this new process, Pavement Management will begin our pavement design when the request is made. Given the early date of this request it will be critical that the traffic information provided at that time be accurate and up-to-date. Following receipt of the Geotechnical Recommendations, and approximately 6 months after the request is received, the pavement recommendations for the project will be placed on the agenda of the Pavement Review Committee. The Final Pavement Design Memo will be issued shortly after the meeting of the Pavement Review Committee. At 60 weeks prior to letting, Pavement Management should be given the opportunity to review the pavement design in light of any changes that have occurred during the design process. It is anticipated that changes to the pavement design at this point would be minor changes to layer thicknesses, and not a change of pavement type.

As the time for pavement design moves further from the let date, the accuracy of the predicted performance of existing pavements decreases. This can result in significant changes in some pay items such as patching and undercutting, and jeopardize the accuracy of cost estimates. In addition, the accuracy of traffic projections decreases as the time between the projection and letting increases. This may result in newly constructed pavements having shorter lives than was intended.

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The Pavement Management Unit looks forward to working with the Highway Design Branch to ensure the success of this new process. If you have any questions, please contact me or Clark Morrison, PE, State Pavement Design Engineer, at 919-250-4094.

cc: Steve Varnedoe, PE
Lacy Love, PE
Njoroge Wainaina, PE
Jay Bennett, PE
Ron Allen, PE
Clark Morrison, PE