



STATE OF TENNESSEE  
**DEPARTMENT OF TRANSPORTATION**

SUITE 1200, JAMES K. POLK BUILDING  
PAVEMENT DESIGN  
NASHVILLE, TENNESSEE 37243-0350

Phone: (615) 741-4894

Fax: (615) 253-5218

March 15, 2011

Shane Hester  
Civil Engineering Manager I  
Suite 1200, James K. Polk Bldg.  
Nashville, TN 37243

SUBJECT: Pavement Design  
Project No. 95100-0105-44  
Pin No. 114169.00  
I-40 Additions  
From Central Pike  
To East of SR-109  
Wilson County

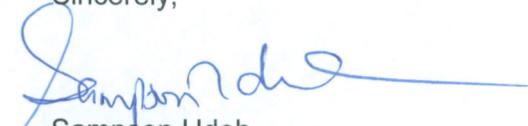
Dear Mr. Hester;

The following are the recommended pavement design for the subject project.

1. Full depth design for I-40
2. Full depth design for Ramp

See the attached pavement design sheets for details. Please direct any questions you might have concerning this design to me.

Sincerely,

  
Sampson Udeh  
Roadway specialist 3

SUU:suu

cc: Scheduling Office  
File copy

DATE: 03/15/11 FULL DEPTH DESIGN FOR I-40 ADDITIO ROUTE I-40  
 COUNTY: WILSON PROJ NO: 95100-0105-44 PIN#: 114169.00  
 DESCRIPTION: FROM CENTRAL PIKE TO EAST OF SR-109

REGION III

ROADWAY & INSIDE SHOULDER DESIGN

| DESCRIPTION                           | THICKNESS    |
|---------------------------------------|--------------|
| 411-03.10 PERF AC (PG76-22) GR "D"    | 1.25         |
| 307-03.08 PERF AC (PG76-22) GR "B-M2" | 2.00         |
| 307-03.01 PERF AC (PG76-22) GR "A"    | 6.00         |
| 307-(**) PERF AC (PG76-22) GR "A-S"   | 4.00         |
| 303-01 MINERAL AGG BASE GRADING "D"   | 12.00        |
| <b>TOTALS</b>                         | <b>25.25</b> |

OUTSIDE SHOULDER DESIGN

| DESCRIPTION                             | THICKNESS    |
|---|--------------|
| 411-01.07 SURFACE AC (PG64-22) GR "E"   | 1.25         |
| 307-01.08 BINDER AC (PG64-22) GR "B-M2" | 2.00         |
| 303-01 MINERAL AGG BASE GRA "D"         | 22.00        |
| <b>TOTALS</b>                           | <b>25.25</b> |

(\*\*) REQUIRES USE OF ITEM 307-

- REMARKS: 1) 6" OF PERF. "A-MIX" TO BE APPLIED AT TWO EQUAL LIFTS  
 2) SUBSURFACE DRAINAGE: AGGREGATE UNDERDRAIN W/PIPE  
 3) MILL 1.25" FROM EXISTING PAVEMENT AND OVERLAY USING 1.25" OF "D" MIX WHERE NECESSARY

DATE: March 15, 2011

RAMPS

ROUTE: I-40

COUNTY: WILSON

PROJ NO: 95100-0105-44

PIN#: 114169.00

DESCRIPTION: FROM CENTRAL PIKE TO EAST OF SR-109

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ROADWAY DESIGN

REGION III

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DESCRIPTION

THICKNES:

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501-01 PORTLAND CEM CONC (PLAIN) 10.00

313-03 TREATED PERMEABLE BASE 4.00

303-01 MINERAL AGG BASE GRADING "D" 6.00

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TOTALS

20.00

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SHOULDER DESIGN

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DESCRIPTION

COEFFICIENT

THICKNESS

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501-01 PORTLAND CEM CONC (PLAIN) 10.00

313-03 TREATED PERMEABLE BASE 4.00

303-01 MINERAL AGG BASE GRADING "D" 6.00

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TOTALS

20.00

REMARK: SUBSURFACE DRAINAGE - AGGREGATE UNDERDRAIN W/PIPE