North Carolina Department of Transportation  
Division of Highways  
Field and A.A.S.H.T.O. Density Determinations

Contract: ______________________  
County: ______________________  
Date: ______________  
Test No: __________

Test Location & Type

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Sta; Lane)</td>
<td>(Rdwy. or Shldr.)</td>
<td>(Embank, Subg., or Base)</td>
</tr>
<tr>
<td>Dist. from C/L; Rt or Lt</td>
<td>(Dist. below Subg. Elev.)</td>
<td></td>
</tr>
</tbody>
</table>

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### Random Test Site Location Calculations

<table>
<thead>
<tr>
<th>Begin Sta.:</th>
<th>Ending Sta.:</th>
<th>Length:</th>
<th>Width:</th>
<th>Test Site Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random No.:</td>
<td>Random (Calculations):</td>
<td>Length</td>
<td>Width</td>
<td>Random No. x Length</td>
</tr>
</tbody>
</table>

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### Road Density Determination

**Volumetric Test (short test only)**

- **Volume of Hole:** 2nd Reading: ______________  
- 1st Reading: ______________  

  **Difference:** ______________ cm³  

  **Compacted Vol. of Soil:** ______________ cm³  

  **Volume:** ______________ (cm³) = ______________ m³  

  **Wet Density:**  
  Wet Wt. Soil (kg)  
  ______________  
  (m³)  

  **Wet Density:**  
  ______________ kg. /m³ *(Dry Road Density)*  

  **% Moisture:**  
  Wt. Wet Soil (g)  
  ______________  
  Wt. Dry Soil (g)  
  ______________  
  Wt. Water (g)  
  ______________  

  **Dry Density:**  
  ______________ kg. /m³ *(Dry Road Density)*  

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### A.A.S.H.T.O. Density Determination

- **Wet Density:**  
  Wt. Soil (kg)  
  ______________  
  (m³)  

  **Wet Density:**  
  ______________ kg. /m³ *(Dry AASHTO Density)*  

  **% Moisture:**  
  Wt. Wet Soil (g)  
  ______________  
  Wt. Dry Soil (g)  
  ______________  
  Wt. Water (g)  
  ______________  

  **Dry Density:**  
  ______________ kg. /m³ *(Dry AASHTO Density)*  

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### Percent Compaction

**Dry A.A.S.H.T.O. Density**

- **Volume Conversions:**  
  1/30 ft³ mold = 0.000944 m³  
  3/40 ft³ mold = 0.002124 m³  
  18’ Ring = 0.169474015 m³ / m  
  cm³ / 1,000,000 = m³  

  **Percent Compaction:**  
  (Compacted Vol. of Soil)  
  Dry Road Density  
  Dry A.A.S.H.T.O. Density  
  (In-Place Vol.)  

*Print Name Legibly w/HiCAMS No.: ______________________  
Signatures: Certified Technician: ______________________  
Resident Engineer: ______________________

*By providing this data under my signature and/or HiCAMS certification number, I attest to the accuracy and validity of the data contained on this form and certify that no deliberate misrepresentation of test results, in any manner, has occurred.