

State DOT: Missouri

State Report Questions on NDT Testing

1. What NDT testing methods for concrete materials, concrete pavements, and overlays are you trying?

- a) Maturity Method
- b) Rebound Hammer
- c) Cover Meter
- d) Falling Weight Deflectometer (FWD)

2. In your experience, how does the reliability of NDT testing methods compare to traditional testing methods?

MoDOT has experienced excellent reliability with the maturity method and has developed a specification allowing its use to determine opening strength, adequacy of weather protection and form removal. Have found the following items critical to success:

- a) Develop maturity curve in the field
- b) Verify the maturity curve during production
- c) Utilize a secure, unalterable maturity meter

MoDOT has utilized the rebound hammer to evaluate in-place concrete when cylinder testing reveals low compressive strengths. The rebound hammer is used to locate the areas with the lowest compressive strength for coring purposes. Typically, MoDOT has found the cores to be within 750 psi of the rebound hammer.

MoDOT has had excellent reliability using cover meters to locate reinforcing steel and dowel bars.

MoDOT has had excellent reliability using the FWD to determine joint efficiency.