

Abstract Submitted  
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**Tensile Bond Strength of Latex-Modified Bonded Concrete Overlays** CAMERON DUBOIS, Linfield College, CHRIS RAMSEYER, University of Oklahoma — The tensile bond strength of bonded concrete overlays was tested using the in-situ pull-off method described in ASTM C 1583 with the goal of determining whether adding latex to the mix design increases bond strength. One slab of ductile concrete ( $f'c > 12,000$  psi) was cast with one half tined, i.e. roughened, and one half steel-troweled, i.e. smooth. The slab surface was sectioned off and overlay mixtures containing different latex contents cast in each section. Partial cores were drilled perpendicular to the surface through the overlay into the substrate. A tensile loading device applied a direct tensile load to each specimen and the load was increased until failure occurred. The tensile bond strength was then calculated for comparison between the specimens.

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