

Texas DOT – Responses to State Report Questions

1. Has your state built concrete overlays? yes

2. If yes:

a. What bid items were used?

0360-0558 THIN BONDED CONCRETE OVERLAY (2")

0360-2045 CONC PVMT (THIN BOND CONC OVERLAY)(2")

0360-0592 THIN BONDED CONCRETE OVERLAY (2"-5")

b. What efforts were made to re-establish a profile grade?

Cold milling is the most widespread method for large areas of concrete surface preparation requiring deep scarification. Shotblasting, sandblasting, and cold milling are the most common surface preparation methods to achieve a roughened substrate.

c. What has been your experience with overruns in concrete mix quantities?

d. How do you typically manage traffic on two-lane and four-lane roadways?
(Please furnish typical sections if possible.) See attached example file.

e. How do you design the overlay thickness?

AASHTO 1993 Pavement Design Guide. DARWin 3.1 program.

f. Is your state applying an alternate bidding approach to concrete and HMA overlays? NO

3. If no:

a. What are the barriers to trying a concrete overlay?

Until somewhat recently, initial cost differences between hmac and pcc overlays were substantial (not just material costs, but more importantly mobilization costs). Combined with speed of construction and comfort levels (design, construction and maintenance) that both benefit hmac overlays in this state, it was difficult to garner enthusiasm for pcc overlays.

Also, we are just now starting to let jobs with alternates for new and reconstructed pavements, so we need to digest how that is working. It is likely that the next step will be project types that could utilize overlays. However, as we have dramatically changed our criteria for which roadways receive a seal coat and which receive an hmac overlay, having pcc overlays compete with hmac overlays won't account for as many miles of construction as it would have 2 years ago.

b. What would help to address those barriers?

Cheaper portable plants and/or better access to ready-mix concrete. Better data on performance. Faster construction.

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