Proceedings
International Conference on Best Practices for ULTRATHIN and THIN Whitetoppings

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International Conference on Best Practices for Ultrathin and Thin Whitetoppings

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Denver, Colorado

Sponsored by

Federal Highway Administration
Colorado Department of Transportation
American Concrete Pavement Association
Transportation Research Board
International Society for Concrete Pavements
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FOREWORD

These are the proceedings of the International Conference on Best Practices for Ultrathin and Thin Whitetoppings, organized by the Federal Highway Administration in cooperation with the Colorado Department of Transportation and the American Concrete Pavement Association. The conference was also co-sponsored by the Transportation Research Board and the International Society for Concrete Pavements.

Whitetopping is referred to as the resurfacing of an existing distressed asphalt pavement with concrete. Conventional whitetopping (conventional concrete pavement placed directly over an existing asphalt pavement) has a long history of use, and the practice is well established. However, of recent origin are the whitetopping techniques that depend on the bond between the concrete resurfacing and the existing asphalt pavement surface (typically milled). These bonded whitetoppings typically involve thinner concrete resurfacing and shorter joint spacing. The bonded whitetoppings are categorized as ultrathin whitetopping (UTW), a concrete surface thickness ranging from 51 to 102 mm (2 to 4 in.), and thin whitetopping (TWT), a concrete surface thickness ranging from 102 to 152 mm (4 to 6 in.).

The first UTW project in the United States was demonstrated in 1991. Since then, the use of UTW and TWT has exhibited significant growth in the United States as well as in other countries. For specific applications and service life requirements, well designed and well constructed UTW and TWT appear to provide satisfactory performance. This conference was organized to provide an international forum to review the progress in the UTW and TWT technologies since 1991, and to help identify the best practices for candidate project selection, design, construction, and repair of UTWs and TWTs.

As these proceedings indicate, the conference program consisted of presentations and discussions on new developments related to the UTW and TWT technologies and lessons learned over the last decade in the use of these technologies. Implementable design and construction techniques that result in long-lasting UTW and TWT
were the focus of the conference. The proceedings should be of special interest to city and county engineers, airport agencies, and related professionals who are using or contemplating the use of UTW and TWT.

Included in the proceedings are papers prepared for the conference and synopses of presentations. The papers were peer-reviewed for technical content, and the editors thank the many reviewers who participated in the review process.

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- Federal Highway Administration
- Colorado Department of Transportation
- American Concrete Pavement Association
- Transportation Research Board
- International Society for Concrete Pavements

Conference Host

The Colorado Local Technical Assistance Program (LTAP), based at the University of Colorado, Boulder, hosted the conference and provided planning support for the conference. Lindsay Nathaniel served as LTAP’s representative for the conference.

Conference Steering Committee

The conference Steering Committee consisted of the following:

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