

## Gregory E. Sanders

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**Sent:** Monday, February 29, 2016 1:55 PM  
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**Subject:** Development Section Bulletin No. 16-02-DSB-Pile Uplift

### << DEVELOPMENT SECTION BULLETIN >>

No. 16-02-DSB-Pile Uplift  
Contact: Suresh Patel  
Effective: Immediately

#### Instructions for Pile Uplift on End Bearing Piles and Friction Piles:

For conventional bridges, as per our past practice pile uplift is not allowed for Service Limit State. Pile uplift may be permitted by SPM or SLE based on infrequent uplift load cases and small magnitude of uplift within a limit state for both Strength and Extreme Event Limit States. This decision is based on the presumed difficulty of a pile cap footing to rotate, specifically for it to be able to rotate on piles driven to rock. For a pile cap footing on end bearing piles and friction piles, it can be verified that factored uplift resistance exists and may counteract nominal uplift load on a pile for Strength and Extreme Event Limit States.

Necessity of top pile cap reinforcement shall be investigated and designed for pile (net) uplift load.

Comments or suggestions should be directed to Development Section. Archived bulletins are located at T:\br-proj\A\_Development\DS Bulletins