



**Washington State  
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February 14, 2011

American Construction Co., Inc.  
1501 Taylor Way  
Tacoma, WA 98421-4100

Contract 8078, I-5, Columbia River Bridge  
Temporary Pile Test Program  
WA 0.3 to OR MP 308.0  
State Project  
Serial Letter No. 16

RE: Confined Bubble Curtain Causing Fountain Effect

Gentlemen:

We discussed several different options with our designers on how to prevent the fountain effect (shooting water vertically out of river) when driving piles with the confined bubble curtain system. We offer the following options when driving piles using the confined bubble curtain system:

- Turn off the top bubble ring, and maintain the 490 CFM, and if that is not effective
- With all the bubble rings operating, lower the air flow 320 or 220 CFM until the fountain effect is eliminated.

If there are any questions, please contact this office at (360) 816-2208.

Sincerely,

Frank Green, P.E.  
CRC Structures Engineering Manager

KAD:rj

cc: Document Control  
M. Degenhart  
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