



## **EARTH DYNAMICS**

2284 N.W. Thurman Street  
Portland, Oregon 97210  
(503) 227-7659 (Phone)  
(503) 227-1074 (FAX)  
E-Mail: Mfeves@aol.com

**RECEIVED**

SEP 23 2011

Columbia River Crossing

September 19, 2011

Steve Morrow  
Columbia River Crossing  
700 Washington St.  
Suite 300  
Vancouver, WA 98660

**RE: Proposal and cost estimate, Rev 01  
Land-based pile test program  
Vibration and acoustic monitoring**

Dear Mr. Morrow,

On April 8, 2011 we provided a cost proposal to you for vibration and acoustic analysis during land-based pile driving. The total proposed cost was not to exceed \$36,000. We understand that the scope of work for the land-based pile testing has been revised to eliminate the Marine Drive site. Therefore, vibration and acoustic testing will need to be conducted at only one site, instead of two, and data acquisition time will be reduced to five days instead of ten. We estimate that this reduction in scope will reduce the total maximum project cost to \$23,000. Except for the reduction in data acquisition time, all work as described in our April proposal is included in this revised price.

Sincerely,

Michael Feves, Ph.D.