

**Dynamic Deflection Measurements of Floating Slab Subway Track  
20 Years Later**

*Jeffrey A. Zapfe  
Acentech Incorporated - Cambridge, Massachusetts  
Phone: (617) 499-8033  
E-mail: [jzapfe@acentech.com](mailto:jzapfe@acentech.com)*

Recently, Acentech had the opportunity to measure the dynamic deflection a section of floating slab track in a subway tunnel. The double-tie floating slab system has been in service for about 20 years. We measured the deflection of the slab and rail at two locations during train passages. We present displacement time histories for two train speeds 16 km/hr and 37 km/hr. We also present vibration spectra that were measured on the tunnel invert.