

## **METRO ORANGE LINE BRT**

Los Angeles County Metropolitan Transit Authority  
Los Angeles County, CA



### **PROJECT DESCRIPTION**

Acentech provided a wide range of on-call noise and vibration services for the Los Angeles County Metropolitan Transit Authority (LA Metro). Our staff completed the following tasks for the Orange Line Bus Rapid Transit (BRT) project:

- Reviewed construction contractor noise and vibration submittals for LA Metro Orange Line construction activity.
- Performed spot checks of noise and vibration levels during daytime and night-time construction to address local homeowners' concerns.
- To keep construction on schedule, analyzed three multiple route rapid bus alternatives in a 9-week timeframe for the Revised Final Environmental Impact Report:
  - Enhanced Transportation Systems Management (87.1 miles)
  - Three East-West Rapid Bus (46.5 miles)
  - Five East-West Rapid Bus Routes (49.1 miles)
- Used the Federal Highway Administration (FHWA) Traffic Noise Model (TNM), to establish existing background noise levels and the mitigated Orange Line operation noise at 902 residential locations. Thus assured comprehensive analyses of potential noise impacts.
- Measured bus noise emission levels of the newer bus in accordance with FHWA protocol for input into the TNM to establish noise emission.
- Assessed residual noise impacts through modeling and measurement of bus operation noise levels to determine eligible residences for potential sound insulation program.
- Prepared sound insulation recommendations to meet interior noise level requirements.

## **Acentech**

### **CONSULTING SERVICES**

- Construction noise monitoring
- Construction vibration monitoring
- Alternative impact assessment
- Noise mitigation design
- Noise modeling
- Noise emission testing

### **PROJECT**

Contract Amount: \$100,000

Completion Date: 2008

### **REFERENCES**

Carl Ripaldi  
Environmental Specialist  
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Roger Dames  
Project Manager  
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#### **BRT Systems Named Best Bus Lines in the U.S.**

(May 27, 2011) Los Angeles was rated among the top three of the nation's leading cities for bus-based transportation because of the high quality bus rapid transit systems according to an independent study "Recapturing Global Leadership in Bus Rapid Transit" issued by the Institute for Transportation and Development Policy (ITDP).

In Los Angeles the Orange Line offers a separated busway, off-board fare collection, and buses arriving every four minutes in rush hour to provide high-quality service and attract new passengers, carrying 22,000 passengers a day.