

**PROJECT:** Quarry Noise Compliance Monitoring, Greenport, NY

**CLIENT:** A. Colarusso and Son, Inc.

Epsilon conducted an extensive sound monitoring program at a quarry in Greenport, New York. The program included measurements of both quarry equipment and community background levels. Short term (20-minute) octave band measurements of quarry equipment were made using a CEL-593 noise meter, and used as reference levels for modeling future equipment noise levels. Long term (24-hour) A-weighted noise level measurements were made using Larson Davis model 812 noise meters at three locations around the quarry during both operational and non-operational periods. These measurements were used to verify that a proposed quarry expansion was in compliance with New York State noise program policy.



**PROJECT:** Island End River Wharf Construction, Chelsea, MA

**CLIENT:** Blasland, Bouck, and Lee



Epsilon monitored impact and vibratory pile driving for H and sheet piles at the Island End River site over a two month period. Octave and A-weighted data were collected in one-second increments over the entire time period of each pile emplacement using a CEL-593 noise meter. The noise measurements gave a record of a typical pile driving noise episode at each location during each week of activity. The sound data were examined to determine the peak noise levels from pile driving at each location. We used the results to document the pile driving activity noise levels in the surrounding community.

**PROJECT:** Remediation Dredging in Island End River, Chelsea, MA

**CLIENT:** Blasland, Bouck, and Lee

Epsilon Associates has performed noise monitoring for a 3-year project to dredge contaminated sediments from the Island End River in Chelsea, MA. Monitoring was initiated with a Pilot Study program, where octave band short-term measurements using a CEL-593, and 24-hour broadband measurements using the Larson Davis 812 meters were made of test dredging activity to see what levels would be expected during the actual dredging operations. Then, an extensive background survey, consisting of one-week broadband measurements at four locations and twenty-minute octave band measurements at nine locations, were conducted over a four month period to establish reference background noise levels. Currently, noise monitoring during dock construction and harbor dredging are either planned or underway.



# NOISE MONITORING

**PROJECT:** Gravel Pit Noise Impact Analysis, Ludlow, VT

**CLIENT:** Okemo LLC

A proposed quarry in Okemo, Vermont will add heavy truck traffic to nearby roadways. Epsilon Associates performed a background traffic noise monitoring study along the roadways where trucks are planned to operate. Broadband noise data was collected at four locations along three different roadways for a period of one hour. In addition, site sketches and photos of existing residences and noise affecting features including trees and terrain were collected, along with concurrent traffic speeds and counts of cars and trucks passing each location. The data were used to calibrate the FHWA's (Federal Highway Administration) TNM traffic noise model for computation of projected noise levels from future truck operations, and as background levels for comparison with projected future truck traffic noise levels



**PROJECT:** Ambient Background Noise Survey, Milford, CT

**CLIENT:** Milford Power Co.



Ambient sound measurements were conducted at the Milford Power Company plant under construction in Milford, Connecticut in 2001. Measurements were made after the transformers were turned on, but before the power plant began operating. The measurements consisted of short-term one third octave band sound levels made at five nearby locations, and 24- hour broadband measurements made at two of the same nearby locations. The measurements were compared to sound levels recorded at the site in 1997. They showed that sound levels had not changed significantly in the intervening time, even though plant transformers had begun operation.

**PROJECT:** Redevelopment of 285 Columbus St. Building, Boston, MA

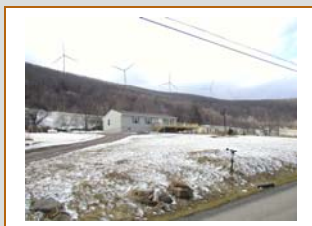
**CLIENT:** Boston Residential Group

Sound monitoring was conducted at six sites near the Red Cross building in downtown Boston for a proposed redevelopment at this location. These monitoring locations were chosen to represent both existing buildings near the site, which directly adjoins Back Bay station, and a potential new building on Columbus Street near the existing Red Cross building. Octave-band noise data collection using a CEL-593 noise meter was done during both daytime and late night periods in order to document existing average and background sound levels. The background sound levels were used as reference values for estimation of potential noise impacts at this location from future rooftop HVAC and generator equipment on the Red Cross building.



**PROJECT:** Wind Farm Noise Level Monitoring, Clinton, PA

**CLIENT:** Waymart Wind Farm



A noise monitoring program was conducted at the Waymart Wind Farm in Clinton Township, PA. Daytime and nighttime short-term octave-band measurements were made at five locations over a period of two days in the vicinity of the existing 43 turbine wind farm, along with concurrent wind velocity measurements. The octave band data were examined for pure and low frequency tones. These measurements were then used to determine if the existing facility was in compliance with local noise regulations under typical wind turbine operating conditions. Data were also compared to similar measurements made prior to construction of the wind farm to see if there was any significant increase in noise levels.