

THE NOISE CONSULTANCY, LLC

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SENT VIA EMAIL

October 24, 2018

Anthony J. Ruggiero. M.P.A.
City Administrator
City of Beacon
One Municipal Plaza
Beacon, NY 12508

Dear Mr. Ruggiero,

This letter is in response to your request for a proposal to assist you in amending Beacon's Noise Code at Chapter 149, as we discussed on the phone yesterday. I've reviewed the proposed amendment to Chapter 149 and can see where its application could present practical difficulties.

As I noted in our phone conversation, in my capacity as President of the Noise Consultancy, I've assisted jurisdictions across the breadth of the US to amend or rewrite their noise ordinances. Please review my resume for a list of clients. I have also served as an expert witness in courts from New Orleans to New York City, including Federal Court.

In my capacity as Director of the Rutgers University Noise Technical Assistance Center, in the past 26 years I've trained maybe 8,000 noise enforcement investigators throughout the country from Alaska to Florida, as well as internationally. Thus, I am well aware of the capabilities of field enforcement officers.

Based upon our conversation, I will propose two approaches to offering my consulting services: as an hourly rate or as a comprehensive lump sum. Your decision may be based upon the extent of the services you desire.

HOURLY RATE: I can provide my services on an hourly basis, if you desire to perform much of the work in-house, with my assistance in reviewing that work. The rate for my services is \$220/hour, and travel is invoiced at \$165/hour. On-site consultation will be invoiced at \$1,800/day, plus travel.

INCLUSIVE PROPOSAL:

- One day of on-site consultation, scheduled at a mutually convenient date;
- Present an educational seminar on the basics of sound as it applies to noise regulation including: the various approaches to noise ordinances (i.e., nuisance ordinances v. performance ordinances) and the practical benefit/drawbacks to each approach, followed by

an open discussion to determine the specific desires of Beacon regarding what the jurisdiction desires to regulate or exempt from the ordinance;

- Tour the jurisdiction, specifically the problem areas;
- Conduct sound level measurements of problem sources &/or conduct a demonstration of the methodology of sound level measurement for enforcement purposes;
- Review whatever relevant documents are provided by the City of Beacon;
- Draft a new or amended Noise Ordinance, as appropriate, based upon all information gathered;
- Perform whatever redrafting is necessary, until the new or amended Ordinance is adopted, or declared legislatively dead;
- Remain available for consultation via phone or e-mail.

The inclusive price for these services is \$9,500. Expenses are additional, and would include, if necessary, a hotel.

Additional days of consecutive on-site consultation will be invoiced at \$1,400/day plus expenses. Additional days of non-consecutive on-site consultation will be invoiced at \$1,800/day plus travel time and expenses.

As you have expressed a desire to have some of your employees trained to conduct community noise enforcement investigations, I will submit a separate proposal from the Rutgers University Noise Technical Assistance Center for such services.

If you have any questions whatever regarding this proposal, please don't hesitate to call me.

I look forward to the possibility of working with the City of Beacon, and assisting you in your effort to deliver a better quality of life to your residents.

Sincerely,



Eric M. Zwerling, M.S., INCE, ASA
President

ERIC M. ZWERLING, M.S., INCE, ASA

Rutgers University Noise Technical Assistance Center
14 College Farm Road
New Brunswick, NJ 08901

The Noise Consultancy, LLC
309 Van Neste Rd
Flemington, NJ 08822

CURRENT POSITIONS

- 1991-Present *Director* – Rutgers Noise Technical Assistance Center
Department of Environmental Sciences
Rutgers - The State University of New Jersey
- 1999-Present *President* - The Noise Consultancy, LLC
Noise Consultant/ Expert Witness (Since 1992)
[Expert for the Defendants, City of New York Law Department -
United States District Court for the Southern District of New York]
- 1993-Present *Noise Enforcement Expert* - New Jersey Department of Environmental
Protection. Contracted (as Director of the RNTAC) to provide technical expertise
on noise related issues to the NJDEP and the State of New Jersey
- 1998-Present Committee Member - S12 Working Group 41, Model Community Noise
Ordinances. Acoustical Society of America
- 2001-Present Committee Member - Technical Study Group on Community Noise
Institute of Noise Control Engineering
- 1994-Present *Instructor* - "Community Noise" in 'Environment and Public Health Course,"
Rutgers Continuing Education Program, Cook College Office of Continuing
Professional Education.
- 1998-2011 *Instructor* - "Noise Hazards" in 'Fundamentals of Industrial Hygiene'.
University of Medicine and Dentistry of New Jersey, School of Public Health,
Office of Public Health Practice
- 1992-2005 *Adjunct Professor*- Rutgers University Department of Environmental
Sciences. Course: 375:336 'Community and Occupational Noise'
- 1998-2000 Commissioner - Franklin Township (NJ) Environmental Commission
- 2010-Present Board of Education, Chair – Green Committee
Readington Township, New Jersey
- 2017-Present Chair – Subcommittee
New Jersey State Noise Code NJAC 7:29 - Amendments
New Jersey Noise Control Council
New Jersey Department of Environmental Protection

PROFESSIONAL AFFILIATIONS

Member - Acoustical Society of America
Member – Institute of Noise Control Engineering

EDUCATION

ABD Ph.D. Candidate
Rutgers - the State University of New Jersey
Department of Environmental Sciences

Occupational Hearing Conservationist
Council for Accreditation in Occupational Hearing Conservation.

Graduate Certificate in Environmental Ethics -
Department of Philosophy, University of Georgia.

B.S., M.S. University of Georgia.

JURISDICTIONAL CERTIFICATIONS

Approved Noise Control Investigator
New Jersey Department of Environmental Protection
Pursuant to N.J.A.C. 7:29 -2.11(a)3

Approved Noise Consultant
New York City Department of Environmental Protection
Pursuant to N.Y.C.A.C. Section 24-231

Approved Instructor
State of Michigan
Department of Licensing and Regulatory Affairs
Bureau of Construction Codes

AWARDS

- 1997 *Advisor of the Year Award*
Rutgers College Student Activities Advisory Council
Faculty Advisor - Students for Environmental Awareness
- 2016 *Sustainable Raritan Award*
Outstanding Achievement in Public Education
Sustainable Raritan River Collaborative and Rutgers' Sustainable Raritan River Initiative

PUBLICATIONS

Zwerling, E.M. 2015. Proposed Noise Standard for Wind Turbine Generators on Farms.
State Agriculture Development Committee, New Jersey Department of Agriculture.

Zwerling, E.M, A. Myers, C. Shamoon. 2012. Analysis of the "Plainly Audible" Standard for Noise Ordinances. Proceedings of Inter- Noise 2012. Institute of Noise Control Engineering.

Zwerling, E.M., C. Shamoon. 2010. Proactive Regulation Engenders Creative Innovation - Quieting the Jackhammer. Proceedings of Noise-Con 2010. Institute of Noise Control Engineering.

Szulecki, S., E. Zwerling, C. Anderson, B. Turpin. 2010. Modeling with CadnaA to estimate the probability of awakening associated with train horns. Proceedings of Noise-Con 2010. Institute of Noise Control Engineering.

Zwerling, E.M., C. Anderson, S. Szulecki, F. Maimone, B. Turpin. 2009. Study of Train Noise in Teaneck, NJ. USEPA Agreement Number: X-83245701-0

Zwerling, E.M. 2005. Regulatory Scheme For Noise Enforcement In New Jersey . *Invited paper*. Journal of the Acoustical Society of America.V.118, No. 3, Pt 2 of 2, Sept. 2005, p. 1849.

Zwerling, E.M. 2004. Training as a Critical Component of Successful Noise Enforcement Programs. *Invited paper*. Journal of the Acoustical Society of America.V.115, No. 5, Pt 2 of 2, May 2004, p. 2568.

Zwerling, E.M. 2004. Noise Enforcement in Cities. *Invited paper*. Journal of the Acoustical Society of America.V.115, No. 5, Pt 2 of 2, May 2004, p. 2593.

Zwerling, E.M. 2002. Characteristics of Successful Local Noise Enforcement Programs. *Invited paper*. Journal of the Acoustical Society of America.V.112, No. 5, Pt 2 of 2, Nov. 2002, p. 2375.

Zwerling, E.M. 2002. Boom Car and Boom Box Code Drafting. The Quiet Zone. Spring 2002.

Zwerling, E.M. 2002. Hearing Protection. In *Encyclopedia of Public Health*, ed. Lester Breslow. Macmillan Reference USA.

Zwerling, E.M. 2001. Vehicle Enforcement. Rutgers Noise Technical Assistance Center. Developed for North Salem, NY

Zwerling, E.M. 2000. Regulation of Amplified Sound Sources. Proceedings of Noise-Con 2000. Acoustical Society of America / Institute of Noise Control Engineering. Newport Beach , CA. December 3-5, 2000 .

Zwerling, E.M. 2000. State of Michigan Model Noise Ordinance. Proceedings of Michigan Municipal League Annual Convention/ Michigan Association of Municipal Attorneys Annual Meeting. September 28-30, 2000 , Macinac Island , MI .

Zwerling, E. M. Contributing Editor. 1991-Present. Community Noise Enforcement. Rutgers Noise Technical Assistance Center.

Zwerling, E. M. Contributing Editor. 1998. Vehicle Sound Reproduction Enforcement. Rutgers Noise Technical Assistance Center. Developed for the City of Rochester, New York

Zwerling, E.M. 1997. Community Noise Enforcement: A Mature Technology. Hearing Rehabilitation Quarterly. 22:4, 4-8+.

Zwerling, E.M., D. Pinto, P. Hanna, J. Lepis, B. Turpin. 1997. Local Noise Enforcement Options and Model Noise Ordinance *With Pre-Approved Language for the State of New Jersey* . Rutgers Cooperative Extension Publication #E215.

Zwerling, E.M. 1997. Community Noise Infosheet. Environmental and Occupational Health Sciences Institute. Public Education and Risk Communication Division.

Zwerling, E.M. 1996. Turning Down the Volume: Effective Strategies for Community Noise Enforcement. The Police Chief. V. 63, Dec. 53-59.

Zwerling, E. M. & B. J. Turpin. 1996. Community Noise Enforcement: Reviving a Moribund Program or Developing One Anew. Proceedings of Noise-Con 96, The 1996 National Conference on Noise Control Engineering. 955-960.

Zwerling, E.M. 1996. Community Noise Pollution Certification and Assistance. Home page for Rutgers Noise Technical Assistance Center. <http://www.envsci.rutgers.edu/org/rntac/>

RESEARCH PROJECTS (at Rutgers University, as P.I. or Co-P.I.)

"Assistance Regarding Noise Standards for Wind Turbines on Farms," Granting Agency: New Jersey State Agricultural Development Commission (SADC), 2011 - 2015.

"Assistance Regarding Noise Standards for Photovoltaic Installations on Farms," for New Jersey State Agricultural Development Commission (SADC), 2010.

"Railroad Noise in Teaneck, New Jersey" Granting Agency: United States Environmental Protection Agency, 2005 - 2009.

"Road Noise Educational Outreach Program," Granting Agency: New Jersey Department of Transportation, 2002.

CONFERENCE PRESENTATIONS

Community Noise Control: Reviving a Moribund Program or Creating One Anew. International Code Council 2013 Conference. Atlantic City, NJ. September 30, 2013.

Emerging Noise Issues: Emergency Generators and Beach Bars. *Invited Presentation*. New Jersey Environmental Health Association Annual Public Health Conference. Atlantic City , NJ March 5, 2013.

Must we regulate civility? Yes, unfortunately. But, is it effective? *Invited lecture*. stillspotting () nyc . Guggenheim Museum. New York City. October 9, 2012.

Analysis of the "Plainly Audible" Standard for Noise Ordinances. Proceedings of Inter- Noise 2012. Institute of Noise Control Engineering. August 22, 2012.

Proactive Regulation Engenders Creative Innovation - Quieting the Jackhammer. *Invited Paper*. Proceedings of Noise-Con 2010. Institute of Noise Control Engineering. Baltimore, MD, April 20, 2010.

Environmental Health and Noise: Issues and Answers. *Invited Presentation*. New Jersey Environmental Health Association Annual Public Health Conference. Atlantic City , NJ March 3, 2008.

Noise Primer For Legal Professionals. *Invited Presentation*. New York State Bar Association Environmental Law Section Fall Meeting. Saratoga Springs , New York . October 13, 2007.

How to Control Noise Pollution in Your Community. *Invited Presentation*. 90th Annual Conference - New Jersey State League of Municipalities. Atlantic City , NJ November 15, 2005.

Regulatory Scheme for Noise Enforcement in New Jersey . *Invited Paper*. 150th Meeting - Acoustical Society of America . Minneapolis , MN October 17-21, 2005.

Noise Enforcement in Cities. *Invited Paper*. 147th Meeting - Acoustical Society of America . New York , New York May 24-28, 2004.

Training as a Critical Component of Successful Noise Enforcement Programs. *Invited Paper*. 147th Meeting - Acoustical Society of America . New York , New York May 24-28, 2004.

Community Noise Impacts. *Invited Presentation*. Topics in Public Health. New Jersey Department of Health and Senior Services. April 16, 2003.

Characteristics of Successful Local Noise Enforcement Programs. *Invited Paper*. First Pan-American/Iberian Meeting on Acoustics. Jointly Sponsored: Acoustical Society of America , the Iberoamerican Federation of Acoustics and the Mexican Institute of Acoustics. Cancun , Mexico .Dec 2-6, 2002.

Community-Based Environmental Noise Management, *Invited Panelist*; The Role of State and Local Governmental Agencies in Noise Abatement and Control, *Invited Panelist*. Inter-Noise 2002, The 2002 International Congress and Exposition on Noise Control Engineering. Dearborn , MI Aug. 19-21, 2002.

Community Noise Regulation and Enforcement: Theory and Practice. American Association of Code Enforcement. 4th Semi-Annual Education Conference. Bowie , MD. May 1-3, 2002.

Regulation of Amplified Sound Sources. Noise-Con 2000. Acoustical Society of America/Institute of Noise Control Engineering. Newport Beach , CA. December 3-5, 2000.

Writing and Enforcing a Noise Ordinance. Michigan Municipal League Annual Convention. Nuts and Bolts of Writing a Noise Ordinance. Michigan Association of Municipal Attorneys Annual Conference. Macinac Island , MI , September 28-30, 2000.

Municipal Noise Regulation - Theory and Practice. International Municipal Lawyers Association, Mid-Year Seminar. Washington , D.C. April 9-11, 2000.

Effective Strategies for Community Noise Enforcement:

Michigan Municipal League 9th Annual Education Conference. Mt. Pleasant, MI.
March 11, 1998.

The Association of Towns of the State of New York , Annual Meeting,
Educational Training Courses. New York City , February 16, 1998 .

American Association of Code Enforcement 8th Annual Business and Educational Conference. Hagerstown , MD , October 20-25, 1997.

Community Noise Enforcement: Reviving a Moribund Program or Developing One Anew. Noise-Con '96, The 1996 National Conference on Noise Control Engineering, Seattle, WA, September 29-October 2, 1996.

NOISE ENFORCEMENT CERTIFICATION COURSES TAUGHT

Community Noise Enforcement
Vehicular Noise Enforcement
Vehicle Sound Reproduction Enforcement
Motor Sports Ordinance Enforcement
Octave Band Analysis for Enforcement Purposes

New Jersey :

Certification and recertification - every three months, 1991 to present.

On-Site:

New Rochelle, NY; Jacksonville, FL (five times); Long Beach, NY (three times); Everett, WA; St. Augustine, FL (three times), Seattle, WA (three times); Fairfax County, VA (twice); Neptune Beach, FL; Gainesville, FL; Anchorage, AK (twice); Binghamton, NY (twice); Washington State Association of Code Enforcement (three times); Ft. Collins, CO; Shelter Island, NY (four times); New York City, NY [NYC DEP, NYPD, NYC Parks, NYC DDOC] (eight times); Rochester, NY; Newport, RI; Platekill, NY; Traverse City, MI (three times); Prince George's County, MD; East Hampton, NY (twice); College Park, MD (twice); DeKalb County, GA (four times); Twinsburg, OH; Sandusky, OH; North Salem, NY; Honolulu, HI; Lafayette, LA (twice); Philadelphia, PA (twice); Barbados, West Indies (twice); Freeport, NY (twice); Collier County, FL (three times); MASS DEP; Walton County, FL (three times); Montgomery County, MD (twice); Greenville County (SC); Vancouver B.C. (three times); Panama City Beach, FL (twice); Matanuska-Susitna Borough, AK; Union, OH; Ithaca, NY (three times); Rehoboth Beach, DE; Southampton, NY (twice); Union, OH; Mercer County (NJ) Parks Department

ON-SITE ORDINANCE DEVELOPMENT WORKSHOPS

Lafayette, LA; Traverse City, MI; Plattekill, NY; St. Augustine, FL; Charleston County, SC; Lansing, MI; DeKalb County, GA; Walton County, FL; Overland Park, KS; Greenville County, SC, Decatur, AL; Yonkers, NY; Ossining, NY; Newport RI; Monroe County, FL; Fort Lauderdale, FL; Panama City Beach, FL

PARTIAL LIST OF CLIENTS

City of New York Law Department; City of Philadelphia Law Department, Environmental & Regulatory Compliance Division; U. S. State Department; City of New York Police Department; Bergen County (NJ) Utilities Authority; New York City Department of Environmental Protection; New York State Office of Attorney General; McDonald's Corporation, Lafayette (LA) Consolidated Government; McGlinchey Stafford (New Orleans); Gaeta Recycling, Inc.; National Ecology; Browning Ferris Industries; Township of Manalapan (NJ); Kansas State Legislature; Readington

Township (NJ); City of Lansing (MI); City of Tacoma (WA); City of St. Augustine (FL); Atlantic Development and Management Corp.; CareMatrix Corporation; County of Charleston (SC); DeKalb County (GA); Greenville County (SC); Ethicon, Inc.; City of Yonkers (NY); Walton County (FL); City of Overland Park (KS); City of Newport (RI); City of Ossining (NY); Franklin Township (NJ); Alliance to Save Southern Ulster's Rural Environment; Roche Molecular Systems; Wheelabrator, Inc.; Monroe County (FL); City of Juneau (AK); Township of Branchburg (NJ); City of Eugene (OR); Union County United (PA); City of Fort Lauderdale (FL); City of Panama City Beach (FL); Stop & Shop Supermarket Company; Track Racket (Millville, NJ); Green Lawn Cemetery (Columbus, OH); Nissan Motor Company, Ltd.; City of Union (OH); City of Ithaca (NY); SA Engineering; Upper Deerfield Township (NJ); Serra Toyota (Traverse City, MI); City of Norwalk (CT), Coronet Inc.