

Environmental Evaluation

- Contractors
 - High surface and air levels early in construction
 - Surface contamination in vehicles, homes, hotel rooms
- Range owner
 - Poor ventilation in some lanes – closed
 - Contamination in men's restroom – closed
 - Closed range for three days, hired contractor to clean
 - Improved ventilation system, but...
 - Volunteer shooters with high levels during shooting
 - Public surfaces still contaminated

Blood Lead Levels

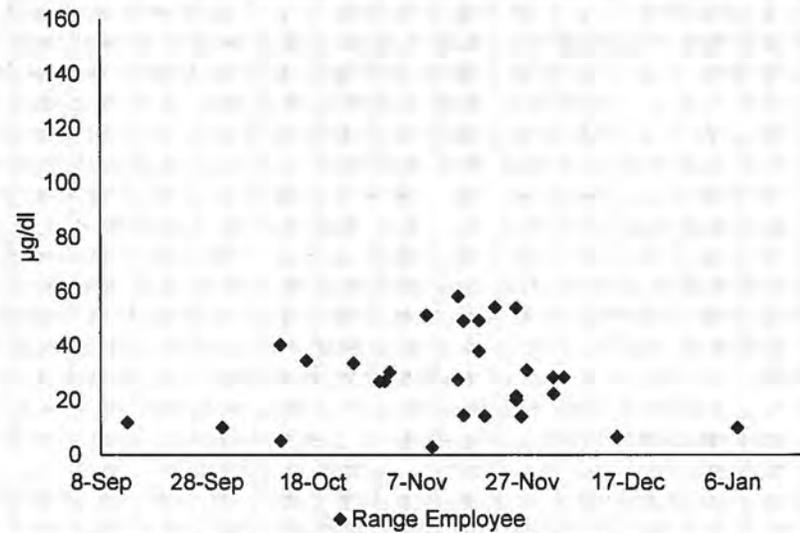
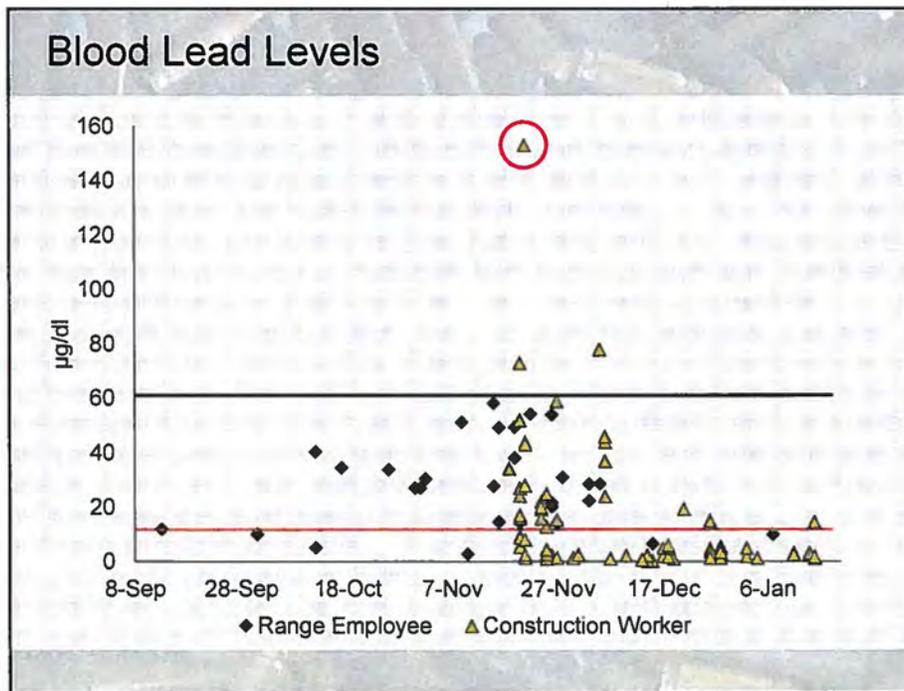
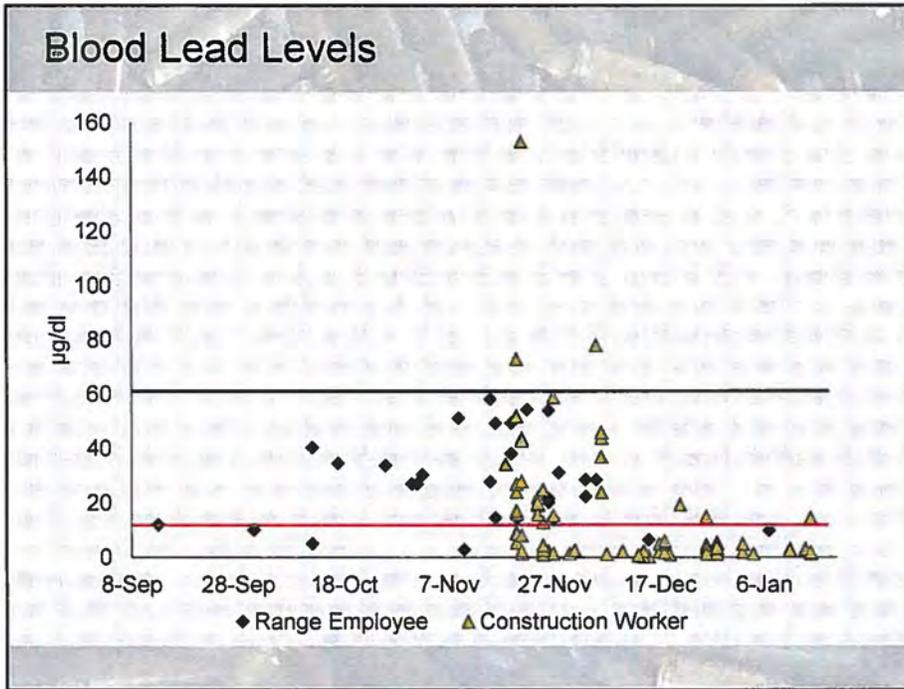


FIGURE 6



Range Employee Interviews

- 39/42 range employees
- None had other significant occupational or home lead exposures
- Highest BLLs
 - Supervising shooters
 - Cleaning the range
 - Removing and sifting the sand
 - Longer hours
- Lack of support by management for personal protective equipment (PPE)

Contractor Interviews

- 100/117 workers interviewed
- Highest BLLs: longer hours, metal workers, demolition, cleaning
- 75% without lead safety training
- 55% without any respirator use on-site
- Non-occupational lead exposures
 - Hunting, fishing
 - Home remodeling
 - Car repair
 - No indoor shooters

Public Exposure

- Many single males among workers
- Household members
 - Of range employees – all BLL <5 µg/dL
 - Of construction workers – 6 with BLL >5 µg/dL
- 9 construction workers stayed in a hotel
- Public notice
 - Pamphlets sent to workers
 - Posted lead hazard warnings at range
 - Print, web, and television news
- One frequent shooter had BLL 12.9 µg/dL

“Gun range under fire over lead in blood of workers”
— Seattle Times, 13FEB2013

“Inexcusable Exposure: Unprotected Workers, Toxic Lead At Gun Range”
— Lynne Peeples, Huffington Post, 20FEB2013

“Gun range workers claim they were poisoned by lead”
— King 5 News, Seattle, 12FEB2013

NOTICE:

The construction activity at the Bellevue Indoor Range is creating higher than normal lead levels in the shooting range. This problem is in the process of being corrected. However, until the renovation of the ventilation system is complete, we cannot ensure that the air within the shooting range is lead-free. You may be exposed to lead levels that could pose a health risk. Pregnant women and children are particularly vulnerable to the harmful effects of lead.

If you have questions or need additional information, please ask the Range Management.

Clinical Impact

- Symptoms with $>10 \mu\text{g}/\text{dL}$
 - 11/20 range employees
 - 14/26 construction workers
 - Headache, muscle/joint pain, irritability, insomnia, fatigue, abdominal cramps, vomiting, constipation, loss of appetite, dizziness
- Decreasing BLL after removal from work
- None needed chelation
- None hospitalized

Limitations

- Lack of authority to compel cooperation
- Possible bias from 60% response
- Only 6–13% response among household members
- Did not have historical BLL data
- Historical versus current lead exposure



Conclusions

- Largest reported occupational lead exposure at an indoor gun range
- Both construction workers and range employees were exposed to disturbed lead dust without adequate PPE or lead safety training
- Number affected was likely higher

Discussion

- Occupational lead safety standards should have been enforced by both range management and contracting employers
- OSHA occupational lead standards date from 1978
 - Medical removal at $\geq 50 \mu\text{g/dL}$
- No protective standards for firing range customers

Worker Recommendations

- Update worker protection standards
 - Lower environmental lead limits
 - Increase frequency of testing
 - Remove from exposure lower blood lead levels
- Require medical monitoring of indoor firing range employees



- ### Public Recommendations
- Increase awareness of lead hazards among shooters
 - Ensure “best practices”
 - Lead-free ammunition
 - Solid bullet traps
 - Cleaning and testing of air and surfaces
 - Routine blood lead testing
 - Medical removal at 10 µg/dL
 - No hand-to-mouth on the range
 - Cleaning skin and clothes

Public Recommendations

- Specify environmental lead levels to keep BLL <5 $\mu\text{g}/\text{dL}$
 - Integrated Exposure Uptake Biokinetic Model (IEUBK)
 - Predict BLLs from inhalation and hand-to-mouth exposures
- Discourage use of indoor ranges by children and women of child-bearing age

Marketing to Women and Children



Marketing to Women and Children

"Texas Gun Range to Host Birthday Parties for Children"

—ABC News, June 8th, 2012

Public Health Opportunities

- Educate contractors on the lead hazards expected with firing range construction sites
- Educate range operators and shooters who consider lead exposure as "normal"
- Incorporate lead exposure controls into firing range permits
- Develop in-house testing capability
- Secure stable funding for lead registries
 - Detection
 - Inspection
 - Enforcement

Acknowledgements

Public Health – Seattle & King County
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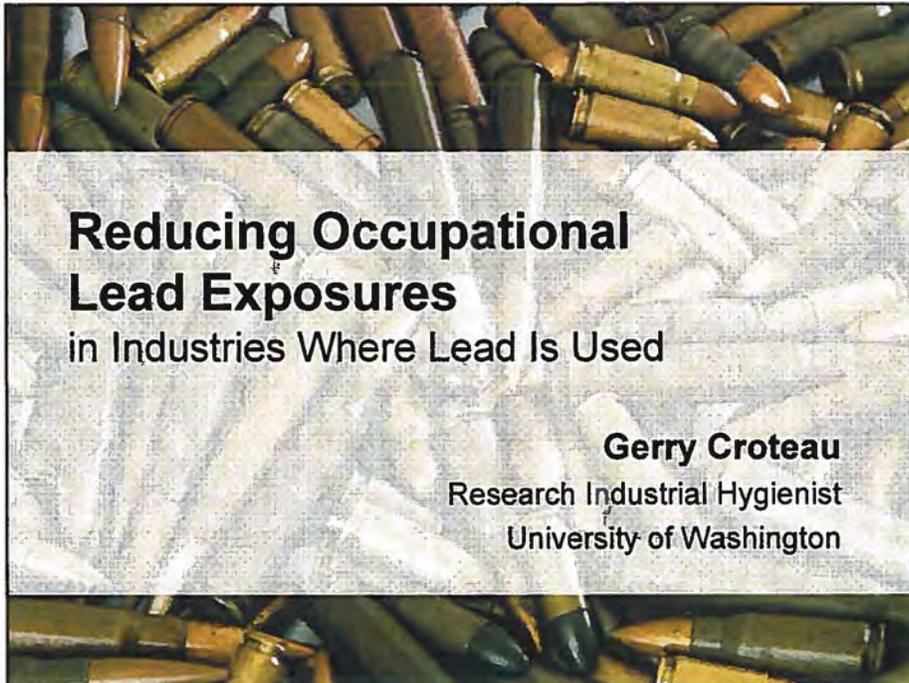
USHW
Clyde Wilson, Erika Figueroa

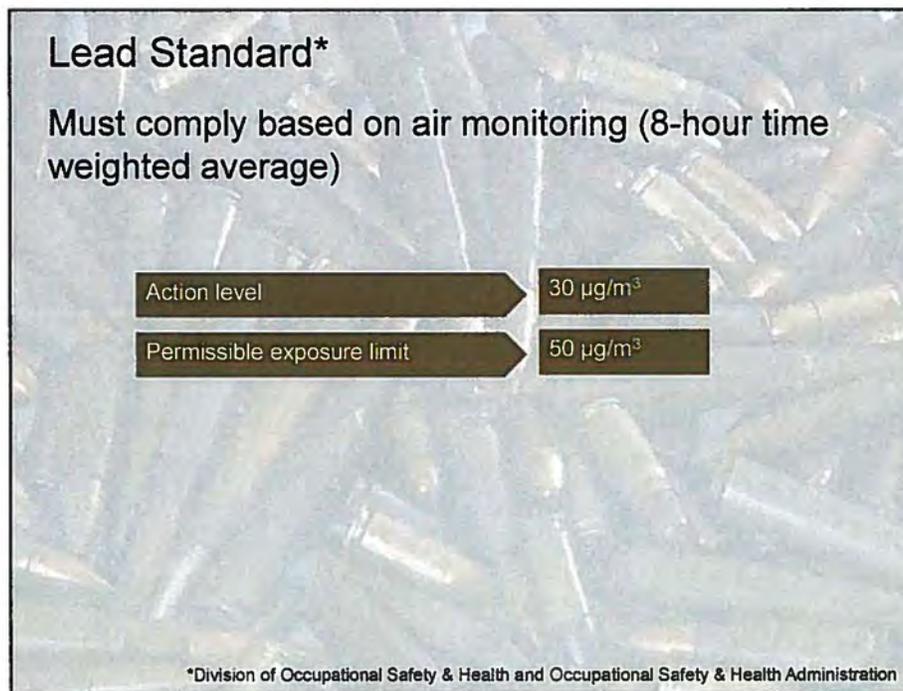
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Public Health Seattle & King County   

Reducing Occupational Lead Exposures in Industries Where Lead Is Used

Gerry Croteau
Research Industrial Hygienist
University of Washington





Regulatory Elements

- Exposure monitoring (2 or 4 times annually)
- Engineering control and work practices
- Respiratory protection
- Protective work clothing
- Housekeeping
- Hygiene facilities and practices
- Medical surveillance (blood lead level monitoring)
- Worker training

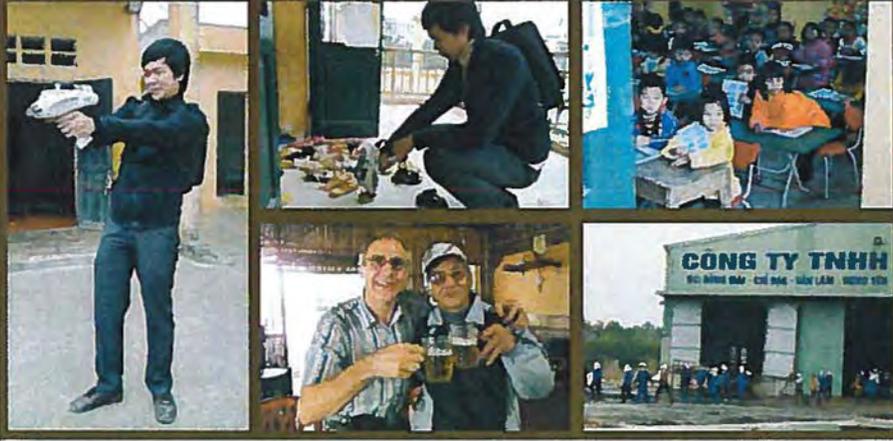
Exposure Control Hierarchy

	<p>Engineering controls</p> <ul style="list-style-type: none">• Material substitution• Ventilation• Noise controls
	<p>Administrative controls</p> <ul style="list-style-type: none">• Job rotation• Change in work practices• Housekeeping
	<p>Personal protective equipment</p> <ul style="list-style-type: none">• Head, hand, body, foot protection• Respiratory protection

Assessing Lead Exposure

	<p>Personal air sampling</p> <ul style="list-style-type: none">• Worker's breathing zone• Monitored for 8-hour workshift
	<p>Surface samples</p> <ul style="list-style-type: none">• Not regulatory requirement• Housing & Urban Development 200 $\mu\text{g}/\text{ft}^2$ guideline
	<p>Blood lead level (BLL)</p> <ul style="list-style-type: none">• Every 6 months• BLL >40 $\mu\text{g}/\text{dL}$; every 2 months• Removal at 60 $\mu\text{g}/\text{dL}$; BLL monthly

Assessing Surface Lead Levels in Vietnam Using Hand Held X-ray Spectrometer





Substitution Example

- Galvanize welds in marine setting
- Pb (35-55%), Sn (20-25%) and Zn (15-25%)
- Exposure levels: 21-35 $\mu\text{g Pb}/\text{m}^3$ air (> 30 $\mu\text{g}/\text{m}^3$ AL)
- Company apprised of regulatory compliance effort
- Alternative Pb-free product put in use

Preparation (grinding & heating)

Application (rubbing stick or wire brush)

The image contains two photographs of a worker in a marine setting. The top photo shows the worker using a grinding tool on a metal surface, labeled 'Preparation (grinding & heating)'. The bottom photo shows the worker using a rubbing stick or wire brush on the same surface, labeled 'Application (rubbing stick or wire brush)'.

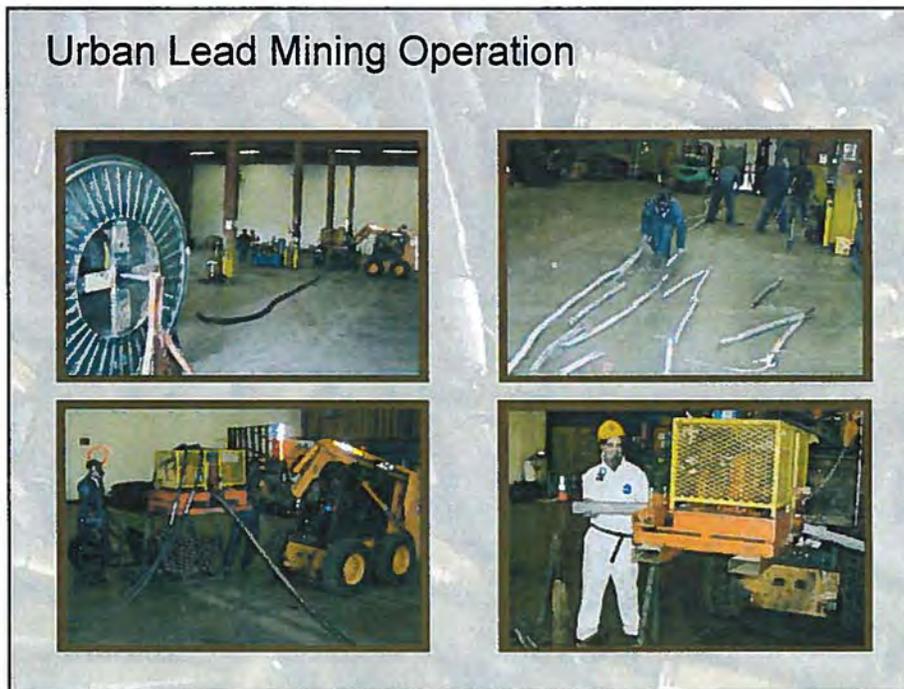
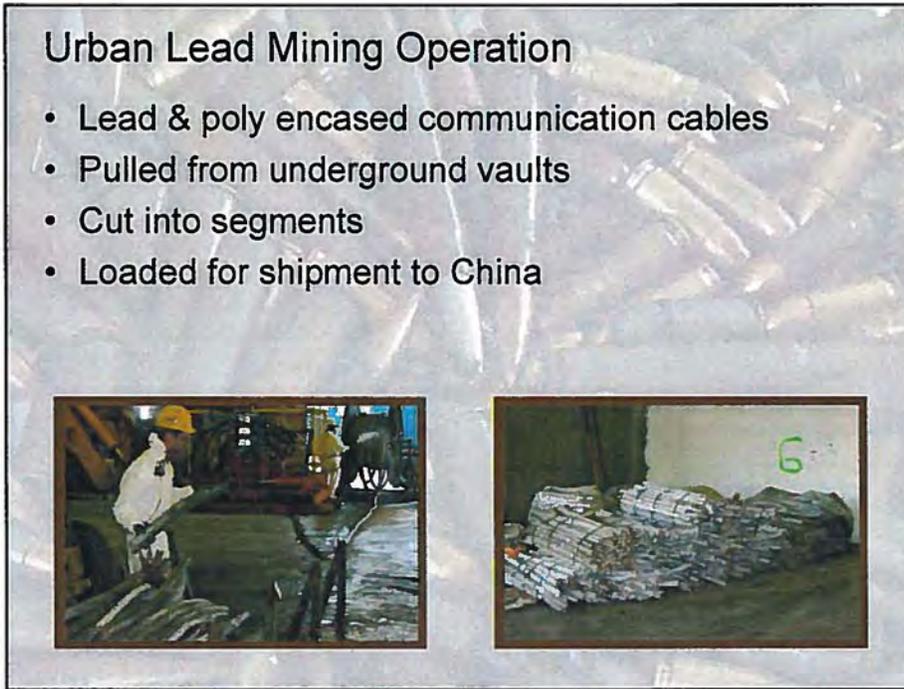
Reducing Lead Dust Generation

- Example: cleaning floors with a vacuum instead of sweeping
- Observe and understand process
- Monitor airborne lead levels to identify factors that affect generation

Melting Lead

- Melting point: 621°F;
- Boiling point: 3164°F
- Lead vapors → cool → fume (“tiny” particles)
- Melt lead at low temp, prevent vapor generation





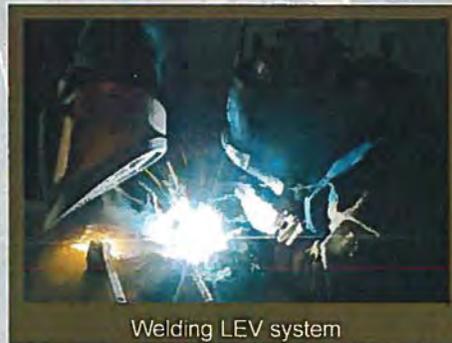
Exposure Monitoring Results

- Personal exposure: 67 to 153 $\mu\text{g Pb}/\text{m}^3$ air
- Exposure thought to be from cutting
- Air samples collected for different tasks:
poly & lead cable, different cutting devices
- 135 $\mu\text{g}/\text{m}^3$ cutting lead cable
108 $\mu\text{g}/\text{m}^3$ cutting poly cable
- Lead deposited on floor from dragging lead cable

Recommendation: modify operation to eliminate cable dragging on floor

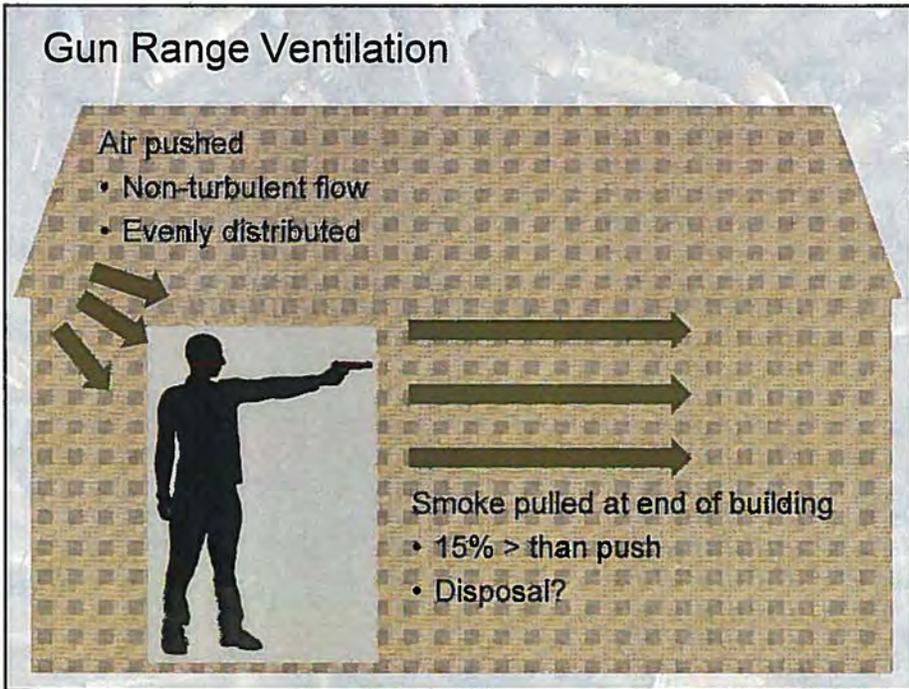
Ventilation

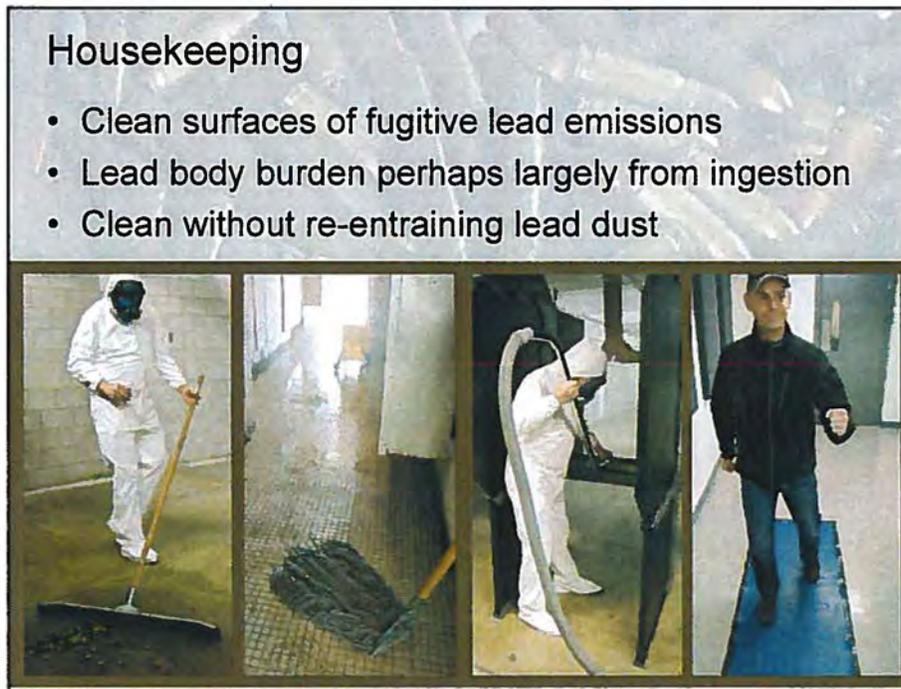
- Suction to capture contaminant
- Most effective if captured at source (local exhaust ventilation)



Gun Range Ventilation

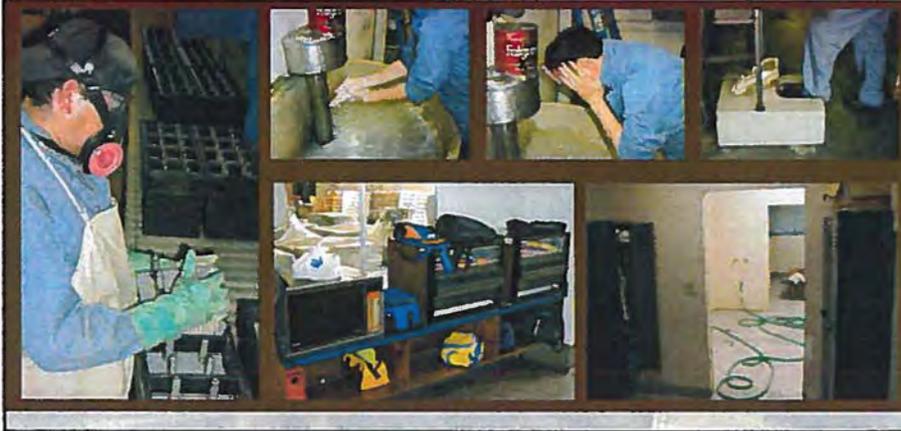
- Source capture not possible
- General (or dilution) ventilation
- Sophisticated push/pull system needed





Personal Hygiene

- Limit skin contact with protective clothing
- Provide clean & dirty change rooms and showers
- Eliminate possibility of taking lead home

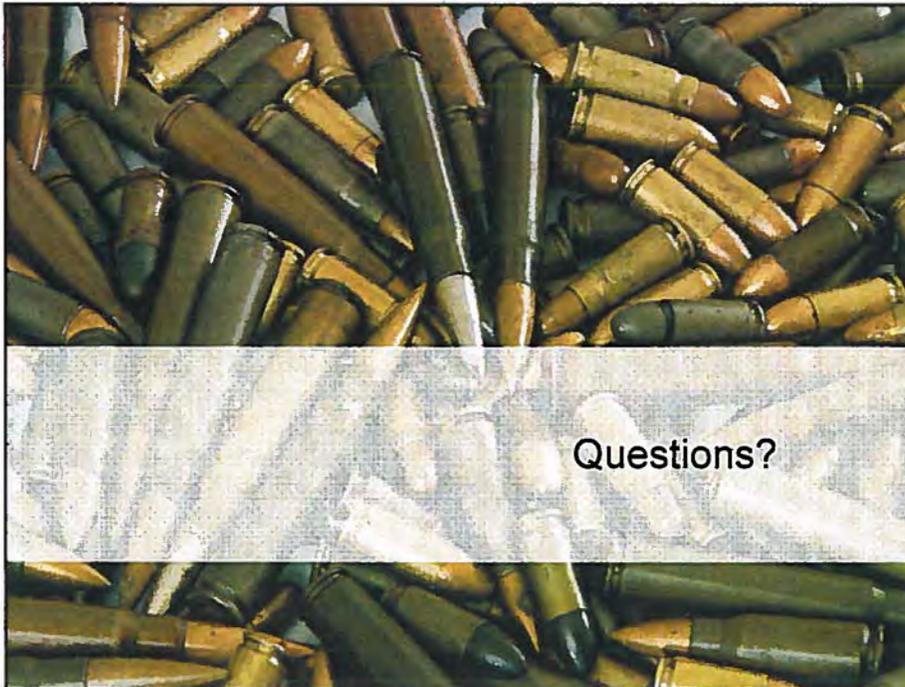


Worker Training

- Worker understands hazard and how to reduce exposure
- Essential elements
 - Health effects
 - Operations that result in exposure
 - Medical surveillance, ventilation controls
 - Housekeeping and hygiene practices to limit oral intake
 - Potential for taking lead home

Summary

- Lead exposure and associated blood lead levels minimized through diligent practices
- Control, housekeeping, and personal hygiene
- Respiratory exposure relatively easy to control
- Oral ingestion exposure route requires great diligence and attention



WORKPLACE SOLUTIONS

From the National Institute for Occupational Safety and Health

Reducing Exposure to Lead and Noise at Indoor Firing Ranges

Summary

Workers and users of indoor firing ranges may be exposed to hazardous levels of lead and noise. The National Institute for Occupational Safety and Health (NIOSH) recommends steps for workers and employers to reduce exposures.

Description of Exposure

According to the Bureau of Justice Statistics, more than 1 million Federal, State, and local law enforcement officers work in the United States [DOJ 2004]. They are required to train regularly in the use of firearms. Indoor firing ranges are often used because of their controlled conditions (see Figure 1). In addition to workers, more than 20 million active target shooters practice at indoor firing ranges. Law enforcement officers may be exposed to high levels of lead and noise at indoor firing ranges. NIOSH estimates that 16,000 to 18,000 firing ranges operate in the United States.

Several studies of firing ranges have shown that exposure to lead and noise can cause health problems associated with lead exposure and hearing loss, particularly among employees and instructors. Lead exposure occurs mainly through inhalation of lead fumes or ingestion (e.g., eating or drinking with contaminated hands) (see Figure 2) [NIOSH 2009].

Exposure Limits

Lead

OSHA has established limits for airborne exposure to lead (see 29 CFR 1910.1025¹). The standard creates the action level and the permissible exposure limit (PEL). The action level for airborne lead exposure is 30 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) as an 8-hour time weighted average (TWA). The OSHA PEL for airborne exposure to lead is 50 $\mu\text{g}/\text{m}^3$ as an 8-hour TWA, which is reduced for shifts longer than 8 hours.

The NIOSH recommended exposure limit (REL) for airborne lead is 50 $\mu\text{g}/\text{m}^3$ as an 8-hour TWA. A worker's blood lead level (BLL) should remain

¹Code of Federal Regulations. See CFR in References.



Figure 1. Law enforcement officers during shooting practice.

below 60 μg lead/100g of whole blood [NIOSH 2009].

Noise

For noise exposure, the OSHA limit is a maximum PEL of 90 decibels, A-weighted (dBA), averaged over an 8-hour time period (see 29 CFR 1910.95).

The NIOSH REL for noise (8-hour TWA) is 85 dBA using a 3-dB exchange rate [see NIOSH 1998]. Exposure to impulse noise, such as that



Figure 2. Emissions from the discharge of firearms.

which comes from weapons, cannot exceed 140 dB sound pressure level (SPL).

Case Studies

Case 1—Lead exposure of school rifle teams

The Alaska Environmental Public Health Program initiated a statewide review of school-sponsored rifle teams after a team coach was found to have an elevated BLL of 44 $\mu\text{g}/\text{dL}$. The review examined six rifle teams using three indoor firing ranges. Teams using two of the firing ranges did not show elevated BLLs. The other three teams used a firing range with extensive lead contamination. The teams showed elevated BLLs. The highest level was 31 $\mu\text{g}/\text{dL}$, which is above the level considered elevated (25 $\mu\text{g}/\text{dL}$). The firing range was voluntarily closed and arrangements were made for a thorough evaluation [State of Alaska 2003; NIOSH 2009].

Case 2—Noise exposures of Federal and local law enforcement officers

NIOSH investigators conducted live-fire noise exposure evaluations of Federal and local law enforcement officers

at indoor and outdoor firing ranges. Measurements were conducted on a variety of law enforcement firearms. Peak sound pressure levels ranged from 155–168 dB SPL. A-weighted, equivalent (averaged) levels ranged from 124–128 dBA. Hearing protectors were also evaluated. Earmuffs had a mean peak reduction of 26 dB; earplugs alone had a mean peak reduction of 24 dB. The mean peak reduction for combined earmuffs and earplugs was 44 dB. NIOSH recommended the use of this double protection for impulsive noise and also noise abatement strategies, modifications to the firing range structure, and a hearing conservation program [NIOSH 2009].

Recommendations

Workers and shooters at firing ranges should take the following steps to protect themselves:

- Take training, follow safe work practices, and participate in health monitoring programs.
- Use personal protective equipment (PPE):
 - Use double hearing protection (earplugs and earmuffs).
 - Wear respirators and full protective outer clothing for maintenance activities that involve close contact with lead dust or spent bullets.

- Wear gloves and eye protection when using chemicals to clean weapons or firing range surfaces.
- Practice good hygiene:
 - Wash hands, arms, and face before eating, drinking, smoking, or contact with others.
 - Change clothes and shoes before leaving the facility.
 - Wash clothes used at the firing range separately from family's clothes.
- Report symptoms to your employer and get medical attention when needed:
 - Common health effects of lead poisoning in adults include reproductive effects, nausea, diarrhea, vomiting, poor appetite, weight loss, anemia, fatigue or hyperactivity, headaches, stomach pain, and kidney problems.
 - If you suspect you have been exposed to lead, even if you have no symptoms, get your blood lead level tested.
 - Exposure to high noise levels can cause hearing loss, tinnitus (ringing in the ear), stress, high blood pressure, fatigue, and gastro-intestinal problems.

Employers should take the following steps to protect workers and shooters at firing ranges:

- Provide workers and shooters with training and information about hazards:
 - Inform pregnant workers and shooters about possible risks to the fetus.
 - Ensure that workers are aware of symptoms that may indicate a health problem.
 - Tell workers about participating in medical surveillance programs and getting blood lead levels tested, even if they don't show symptoms.
- Establish effective engineering and administrative controls:
 - Install an effective supply air and exhaust ventilation system.
 - Maintain and replace air filters regularly.
 - Apply appropriate noise control measures to limit noise inside the range and in nearby areas.
 - Keep the firing range and other workplace areas clean using proper cleaning procedures such as wet sweeping and HEPA vacuuming of surfaces.
 - Provide workers with lockers and places to wash to avoid take-home contamination.
 - Limit length of time that workers and shooters use the firing range: rotate assignments and provide quiet, clean, break areas.

- Provide workers with protective equipment:
 - Provide hearing protection devices such as earplugs and earmuffs.
 - Provide skin protection, eye protection, and NIOSH-approved respirators for workers who clean lead-contaminated areas.
 - Provide floor mats, knee pads, and shoe covers to limit transfer of lead to clothing.
- Review OSHA requirements for medical monitoring for lead (29 CFR 1910.1025(j)) and noise (29 CFR 1910.95(d)(e)(g)(h)).
- For best medical and lead management practices, consult the Association of Occupational and Environmental Clinics, Kosnett et al. [2007] and NASR [2005].

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This document was prepared by Chucri A. Kardous (Division of Applied Research and Technology) and Susan Afanuh (Education and Information Division), NIOSH.

References

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

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Cincinnati, OH 45226-1998

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For More Information

More information about firing ranges and noise and lead exposure can be found on the following NIOSH Web sites:

<http://www.cdc.gov/niosh/topics/ranges/>
<http://www.cdc.gov/niosh/topics/noise/>
<http://www.cdc.gov/niosh/topics/lead/>

To obtain information about other occupational safety and health topics, contact NIOSH at

Telephone: 1-800-CDC-INFO (1-800-232-4636)
TTY: 1-888-232-6348 • E-mail: cdcinfo@cdc.gov
or visit the NIOSH Web site at www.cdc.gov/niosh

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DHHS (NIOSH) Publication No. 2010-113

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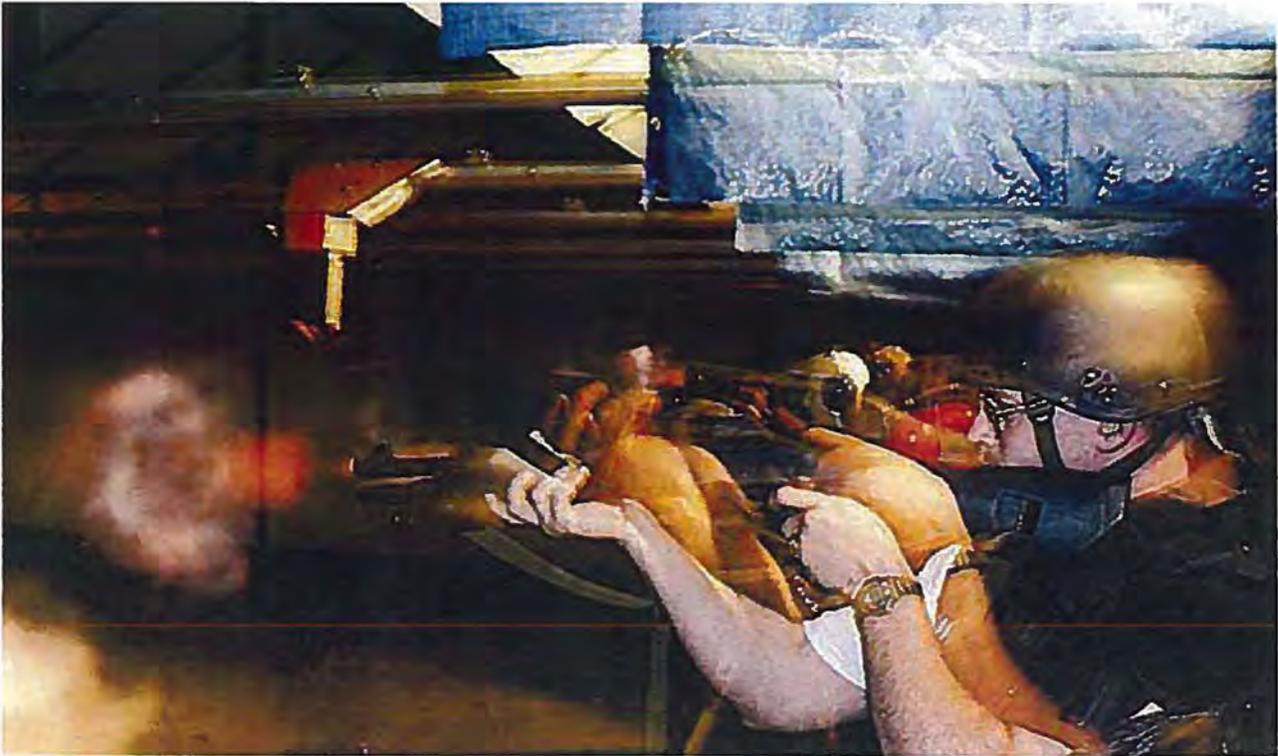


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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
4676 Columbia Parkway
Cincinnati, OH 45226-1998

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For More Information

More information about firing ranges and noise and lead exposure can be found on the following NIOSH Web sites:

<http://www.cdc.gov/niosh/topics/ranges/>
<http://www.cdc.gov/niosh/topics/noise/>
<http://www.cdc.gov/niosh/topics/lead/>

To obtain information about other occupational safety and health topics, contact NIOSH at

Telephone: 1-800-CDC-INFO (1-800-232-4636)
TTY: 1-888-232-6348 • E-mail: cdcinfo@cdc.gov
or visit the NIOSH Web site at www.cdc.gov/niosh

For a monthly update on news at NIOSH, subscribe to *NIOSH eNews* by visiting www.cdc.gov/niosh/eNews.

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As part of the Centers for Disease Control and Prevention, NIOSH is the Federal agency responsible for conducting research and making recommendations to prevent work-related illness and injuries. All *Workplace Solutions* are based on research studies that show how worker exposures to hazardous agents or activities can be significantly reduced.

Reducing Exposure to Lead and Noise at Indoor Firing Ranges

DHHS (NIOSH) Publication No. 2010-113

Table 1. Peak Pressure Levels of Various Firearms

<u>Rifle #</u>	<u>Description</u>	<u>dB PPL (SLM)</u>	<u>Pascals peak (RTA)</u>
1.	7 mm Mouser	154.9	1160
2.	.270 cal with BOSS; 130 grain Power Point	164.6	3140
2.	.270 cal with BOSS; 150 grain	163.9	3110
2.	.270 cal with attachment—No BOSS; 130 grain	158.1	1660
2.	.270 cal with attachment—No BOSS; 150 grain	157.3	-
3.	(?) No BOSS, no attachment; 130 grain	157.9	1520
3.	(?) No BOSS, no attachment; 150 grain	157.1	1400
4.	Browning .22/250 with BOSS; 40 grain	163.1	2960
4.	Browning .22/250 with BOSS; 55 grain	162.9	2790
4.	Browning .22/250 with cover—No BOSS; 40 grain	155.3	-
4.	Browning .22/250 with cover—No BOSS; 55 grain	154.1	-
5.	.300 Win Mag bolt with cover—No BOSS; xxx ammo	157.5	1630
5.	.300 Win Mag bolt with cover—No BOSS; high velocity	161.5	2380
5.	.300 Win Mag bolt with BOSS; xxx ammo	164.8	3170
5.	.300 Win Mag bolt with BOSS; high velocity ammo	165.5+	3240
6.	7 mm "Plain Jane"; 140 grain	158.3	1660
6.	7 mm "Plain Jane"; 160 grain	157.5	1545
7.	7 mm with BOSS; 140 grain (same as #6 ammo)	163.6	3110
7.	7 mm with BOSS; 160 grain (same as #6 ammo)	163.5	3110
7.	7 mm with cover—No BOSS; 140 grain (same as #6)	159.5	1880
7.	7 mm with cover—No BOSS; 160 grain (same as #6)	157.8	1460
8.	.300 Win Mag plain barrel; 180 grain	158.3	1650
8.	.300 Win Mag plain barrel; 180 grain high velocity	158.8	1780
9.	.338 Win with cover—No BOSS; 210 grain	157.1	1470
9.	.338 Win with cover—No BOSS; 250 grain	156.8	1430
9.	.338 Win with cover—No BOSS; 250 grain high energy	161.5	1530
9.	.338 Win with BOSS; 210 grain	164.5	3230
9.	.338 Win with BOSS; 250 grain	163.8	3100
9.	.338 Win with BOSS; 250 grain high energy	164.5	3200

Table 2. Duration of Peak Pressure Levels for Various Firearms

<u>Rifle #</u>	<u>Description</u>	<u>dB PPL (SLM)</u>	<u>Duration (millisec)</u>
1.	7 mm Mouser	154.9	3.3
2.	.270 cal with BOSS; 130 grain Power Point	164.6	3.5
2.	.270 cal with BOSS; 150 grain	163.9	3.8
2.	.270 cal with attachment—No BOSS; 130 grain	158.1	3.5
2.	.270 cal with attachment—No BOSS; 150 grain	157.3	-
3.	(?) No BOSS, no attachment; 130 grain	157.9	3.4
3.	(?) No BOSS, no attachment; 150 grain	157.1	3.2
4.	Browning .22/250 with BOSS; 40 grain	163.1	2.9
4.	Browning .22/250 with BOSS; 55 grain	162.9	3.1
4.	Browning .22/250 with cover—No BOSS; 40 grain	155.3	-
4.	Browning .22/250 with cover—No BOSS; 55 grain	154.1	-
5.	.300 Win Mag bolt with cover—No BOSS; xxx ammo	157.5	3.5
5.	.300 Win Mag bolt with cover—No BOSS; high velocity	161.5	3.0
5.	.300 Win Mag bolt with BOSS; xxx ammo	164.8	4.1
5.	.300 Win Mag bolt with BOSS; high velocity ammo	165.5+	3.5
6.	7 mm "Plain Jane"; 140 grain	158.3	3.7
6.	7 mm "Plain Jane"; 160 grain	157.5	3.4
7.	7 mm with BOSS; 140 grain (same as #6 ammo)	163.6	3.7
7.	7 mm with BOSS; 160 grain (same as #6 ammo)	163.5	3.6
7.	7 mm with cover—No BOSS; 140 grain (same as #6)	159.5	2.8
7.	7 mm with cover—No BOSS; 160 grain (same as #6)	157.8	3.5
8.	.300 Win Mag plain barrel; 180 grain	158.3	3.5
8.	.300 Win Mag plain barrel; 180 grain high velocity	158.8	4.0
9.	.338 Win with cover—No BOSS; 210 grain	157.1	3.5
9.	.338 Win with cover—No BOSS; 250 grain	156.8	3.8
9.	.338 Win with cover—No BOSS; 250 grain high energy	161.5	3.7
9.	.338 Win with BOSS; 210 grain	164.5	3.4
9.	.338 Win with BOSS; 250 grain	163.8	3.8
9.	.338 Win with BOSS; 250 grain high energy	164.5	3.8



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OSHA News Release - Table of Contents

News Release

U.S. Department of Labor

Release Number: 10-1079-ATL
Aug. 23, 2010
Contact: Diana Petterson Michael D'Aquino
Phone: 202-693-1898 404-562-2076
E-mail: Petterson.Diana@dol.gov D'Aquino.Michael@dol.gov

US Department of Labor's OSHA cites E.N. Range Inc. in Miami, Fla., more than \$2 million for exposing workers to lead and other hazards

FORT LAUDERDALE, Fla. - The U.S. Department of Labor's Occupational Safety and Health Administration has issued citations to E.N. Range Inc. in Miami, Fla., alleging the company knowingly neglected to protect employees who clean gun ranges from serious overexposure to lead. It also provided, without medical supervision, non-FDA-approved treatments for lead exposure. The company was cited for more than 50 violations of the lead standard and others, with total proposed penalties of \$2,099,600.

"This company was well aware of what it needed to do to protect its workers from a well known hazard. It not only failed to provide that protection, it misled employees - most of whom had limited knowledge of English - into believing that it was providing them with appropriate medical treatment," said Secretary of Labor Hilda L. Solis. "Such a blatant disregard for the health of workers will not be tolerated under this administration."

E.N. Range has been cited for 42 willful and serious violations of the lead standard with proposed penalties of \$1,884,000. OSHA's lead standard requires employers to protect their workers from lead exposure which can cause many serious health issues including brain damage, paralysis, kidney disease, and even death.

OSHA's lead standard also addresses the use of chelating agents, which are medicines intended to reduce blood levels that can have significant adverse side effects. The standard prohibits the use of these agents prophylactically, and permits their therapeutic use only under the supervision of a physician in an appropriate clinical setting. Willful citations were issued alleging that E.N. Range violated this provision by giving its workers non-FDA-approved chelating agents without medical supervision.

"This is an egregious situation where the employer deliberately refused to provide the necessary protections to keep workers safe from overexposure to lead," said Assistant Secretary of Labor for OSHA Dr. David Michaels. "The company even knew its workers suffered from lead poisoning, yet avoided proper medical attention in favor of providing an unapproved and potentially unsafe treatment."

The citations allege that E.N. Range did not use engineering controls to prevent overexposure to lead, perform air sampling to determine the extent of its workers' exposure, provide showers for workers who had been exposed to lead, or provide blood testing to exposed workers every six months, all of which are required by the lead standard.

The company was also found in violation of the respiratory protection standard for failing to provide medical evaluations and fit testing for respirators. Additionally, the company is being cited for failing to abate a previously-cited violation discovered during an inspection in February 2009. That failure-to-abate notice charges that the employer had neglected to implement a job rotation schedule to reduce lead exposures. The company is also being cited for additional serious violations, including a spliced electrical cable and failure to ensure the blades of a box fan were adequately guarded.

A willful violation is one committed with plain indifference to or intentional disregard for employees' safety and health. A serious citation is issued when there is substantial probability that death or serious physical harm could result from a hazard about which the employer knew or should have known. Two other-than-serious violations have been issued with no penalty for failing to label bags used to dispose of contaminated clothing.

The company has 15 business days from receipt of the citations and proposed penalties to comply, request a conference with OSHA's area director or contest the findings before the Independent Occupational Safety and Health Review Commission. The site was inspected by staff from OSHA's Fort Lauderdale Area Office, 1000 S. Pine Island Road, Suite 100, Fort Lauderdale, FL 33324; telephone 954-424-0242. To report workplace accidents, fatalities or situations posing imminent danger to workers, call OSHA's toll-free hotline at 800-321-OSHA (321-6742).

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to assure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit <http://www.osha.gov>.

###

U.S. Department of Labor releases are accessible on the Internet at <http://www.dol.gov>. The information in this news release will be made

FIGURE 6

McCauley, Erin

From: Tom Jones <saedc0@hotmail.com>
Sent: Monday, December 23, 2013 5:15 PM
To: McCauley, Erin
Cc: pattycarb@msn.com
Subject: Whistling Pines Gun Club Development

Hello:

I am a concerned resident that has a direct line of sight (and thus direct sound path) to the proposed development.

If the noise levels are what they are now in the nearby light industrial area, most people would not have a concern that a new business is added to the area. However, due to the nature of the proposed new business this is not likely to be the case.

I really think that the city should pay particular attention to the decibel levels that are going to be produced by the high-powered weapons that are likely to be discharged in the club. We would like to request assurances that at any point in time the dB produced will be no higher than what we currently experience. Average 24-hour noise levels offer little correlation since the club is not likely to be opened 24-hours. Did they specify what the maximum dB noise level is likely to be at 500 ft?

In addition, has an environmental impact assessment been conducted. Is the new site going to affect the nearby park? Are the reports available? Also sounds are waves that bend and bounce hard surfaces. Due to the rocky nature of the hills, it seems it would be impossible to determine which way the sound will travel. I would think that the least the developer could do is show an independent noise report and not only something they prepared themselves.

Furthermore, if the project goes forward and at the end we find the noise intolerable? Do we, as residents, have any recourse? The builder will be long gone by then.

We understand that we are located next to a light industrial area. However, most of us knew and accepted existing sound levels at the time our residences were purchased. The new development might be driven by a profit motive and that is to be respected. We only ask that the same respect be afforded to us. It would not be fair that our property values decrease because potential buyers feel that the area sounds like downtown Damascus, nor it would be fair that our quality of life gets affected because of undue noise during daily activities.

Respectfully,

Edgar Coss
719-535-0515

McCauley, Erin

From: Carolyn Cochran <carolynsunbird@centurylink.net>
Sent: Monday, December 23, 2013 12:00 PM
To: McCauley, Erin
Subject: Re: Whistling Pines Gun Club

Thank you for the clarification. It is even closer to my neighborhood than I thought. Also the original proposal was to be underground and now it is to be above ground. For the sound factor, that is a big difference. Also allowing machine guns or their equivalent. We can hear the big gun fire from Fort Carson often times so imagine the problems with sound we will have when it is just below us. I can't imagine this being approved.

I hope you don't support this project.

Sent from my iPad

On Dec 23, 2013, at 8:58 AM, "McCauley, Erin" <EMcCauley@springsgov.com> wrote:

Hi Carolyn,

I think there may be some confusion – the site for the proposed indoor firing range is not behind the Albertson's on Centennial but rather within the industrial area off of Elkton Drive. Here's a map:

<image006.png>

The area in yellow is the proposed site and the red circle is the Albertson's. If you'd like to view the plans or more information about the proposal, please click on this link: <http://web-plan/pds/LDRSearch.htm> and type "CPC CU 13-00077" into the "Enter the File Number" box. You'll be able to view everything that's been submitted on the proposal. If you have specific concerns about the site in yellow, please feel free to email them to me.

Thanks,

Erin McCauley AICP LEED AP BD+C

Planner II
Land Use Review Division
Planning & Development Team
30 S. Nevada Avenue, Suite 105
Colorado Springs, CO 80903
(719) 385-5369 - phone
(719) 385-5167 - fax
emccauley@springsgov.com

<image007.png> <image005.png>Please consider the environment before printing this email.

From: Carolyn Cochran [mailto:carolynsunbird@centurylink.net]
Sent: Monday, December 23, 2013 7:24 AM
To: McCauley, Erin
Subject: Whistling Pines Gun Club

Erin,

Please consider me a voice against this proposed rifle range site behind the Albertsons on Centennial. I can't imagine the City approving this proposal in such a heavily developed area. If it is, I will certainly vote against all present board members that vote for approval and hope that you will send that information to the Pinecliffs Homeowners Association. If that is not available, I will hold the mayor and his staff accountable.

I appreciate your help in this matter.

Sincerely,

Carolyn Cochran

McCauley, Erin

From: Kim Young <younglingsmom@gmail.com>
Sent: Monday, December 23, 2013 9:44 AM
To: McCauley, Erin; Wysocki, Peter
Cc: morrigh15@aol.com
Subject: Proposed Whistling Pines Gun Club

Dear Ms Cauley and Mr. Wysocki,

My name is Kimberlee Young. I live at 4941 Cliff Point Cir W and have lived here for 22 years. I have substantial concerns about repetitive noise pollution for our neighborhood and therefore, home values for our neighborhood. Pinecliff is a quiet, remote-feeling residential neighborhood. It has high resale value because it is a refuge from the hustle and bustle of living, yet conveniently located to the programs and services our city has to offer.

I am not an engineer; I am a homeowner. I can speak to noise in my neighborhood. Noise here on the bluff is quite an interesting phenomenon. There are times when I can hear the coal trains go by on tracks that are more than a mile away from my home. Fireworks (sadly) which are set off in Mountain Shadows reverberate to our home, as well. Even explosions from the rock quarry on the western ridge of Mountain Shadows find their way here to my home, as well. I mention these noises not to complain, but to illustrate the varied ways noises act on our bluff. They are not problems as occasional happenings, but they would be completely unacceptable on a regular basis. The repetitive rat-a-tat-tat of an outdoor shooting range, no matter how quiet, will not be acceptable. I equate this to a dripping faucet. The loudness of the sound is not what is at issue. It is the ongoing drip that causes one to get up from the chair and turn off the water.

I was out of town when the community meeting was held to address the proposed gun club or I would have attended to express my opposition to having the gun club placed so close to a residential neighborhood.

Thank you for your time and consideration.

Kimberlee Young
4941 Cliff Point Circle W
Colorado Springs, CO 80919-8110

MM of Jeffrey D Young; Brazil São Paulo Interlagos Mission 10/12 - 10/14
<http://mormon.org/me/1P7X>

On ne voit bien qu'avec le coeur. L'essentiel est invisible pour les yeux. One cannot see well except with the heart. The essential is invisible to the eyes. -- A. de Saint-Exupéry

McCauley, Erin

From: Robert Berta <bberta@msn.com>
Sent: Monday, December 23, 2013 7:35 AM
To: McCauley, Erin
Cc: president@Pinecliff-HOA.com
Subject: Whistling Pines Gun Club

Dear Ms. McCauley,

We are residents of Pinecliff that have several concerns regarding the proposed gun club.

Our concerns are about noise and the effect on our quality of life and property values. Another concern are the changes that the developer seems to be trying to "sneak" by.

Many homes in the neighborhood do not have air conditioning. We currently hear noise from businesses on Elkton in the warmer months while our windows are open. We certainly do not want any additional noise and constant reverberations.

We also feel the developer's change from an underground rifle range to an above ground range is unacceptable. Also unacceptable are the plans to permit .50 caliber machine guns, that were not tested by an acoustical engineer. These changes will have drastic impacts on our neighborhood and the city needs to review the developer's request for a "conditional use change to allow Indoor Sports and Recreation in an existing PIP-2 zone. This is not a request for a quiet indoor climbing gym or an ice rink, its a request for a 20,000 sq ft above ground firing range located only 500 ft of homes in our neighborhood.

The residents of Pinecliff have been very active in preserving the tranquility and property values of our neighborhood. We have a active homeowner's association, several neighborhood watch committees and we have been vital in acquiring additional land to expand Ute Valley Park.

Please take our valid concerns into consideration when reviewing this project.

Sincerely,

Robert and Catherine Berta
4960 Nightshade Circle
Colorado Springs, Co 80919
(719) 535-0259

McCauley, Erin

From: Marcia Oltrogge <marcia_oltrogge@qwest.net>
Sent: Sunday, December 22, 2013 5:40 PM
To: McCauley, Erin
Cc: Wysocki, Peter
Subject: Whistling Pines Gun Club

Erin,

Please include one additional comment from me with the concerns about the Whistling Pines Gun Club.

The drawings posted last week do show a deck which is fully open to the north, facing our neighborhood, as well as the west. This means that noise from that second level deck is an additional factor in this issue, and I have not seen it addressed in any of the noise studies. Please factor this into your data when considering the conditional use permit. It's another unknown factor to add to the already uncertain gun noise levels (no margin of error used in the sound study, no study done for the loudest guns that may be used, and no guarantee that the building material will dampen noise as suggested).

With the use of the land as zoned, the light industry and neighborhood successfully co-exist. Guns are loud. The probability for noise coming from a gun club make it incompatible in this particular area. Since the gun club doesn't need to be there and doesn't add to the general welfare of those currently using the adjacent land, why jeopardize what's already working and risk our home values in the process?

Sincerely,
Marcia Oltrogge
5040 Cliff Point Circle East

McCauley, Erin

From: Dan & Marcia <dm@oltrogges.com>
Sent: Sunday, December 22, 2013 4:53 PM
To: McCauley, Erin
Cc: Wysocki, Peter
Subject: Whistling Pines Gun Club Concerns

To: Erin McCauley, City Planning

My name is Steve Oltrogge, and I am a resident at 5040 Cliff Point Circle East. I am concerned about the Whistling Pines Gun Club asking for a conditional use permit for the area zoned as light industry just south of Cliff Point Circle in the Pinecliff neighborhood. I understand the gun club is installing features that will attempt to reduce the noise outside the building, but why should our neighborhood take the risk of having our peace ruined by a building used as a hobby for a few people, especially one that doesn't fit the use of the land as planned?

Another risk that came to my mind is safety. All it takes is one person not thinking intelligently and one shot at the abundant wildlife on our hill to put a resident in danger. We regularly spot large bucks, bear, bobcats, and mountain lions here. Quite often we'll have 6 – 10 mule deer munching the vegetation in our yard. The current gun club isn't surrounded by wildlife, so we can't say this won't be an issue. Just the perceived risk may affect the value of our neighborhood as well.

Please consider a use for this land with less risk to the peace and safety of our neighborhood and the light industry that already exist in this area.

Thank you,
Steve Oltrogge

McCauley, Erin

From: Dan & Marcia Oltrogge <oltroggedm@qwest.net> on behalf of Alainao@qwest.net
Sent: Sunday, December 22, 2013 5:41 PM
To: McCauley, Erin
Cc: Wysocki, Peter
Subject: Whistling Pines Gun Club

Ms. McCauley,

I am writing to oppose the Whistling Pines Gun Club asking for a conditional use permit to build just south of the Pinecliff neighborhood. I grew up in the neighborhood and can attest to the quietness of the area. As a kid, it was possible to feel like I was out in the forest while I was only in my backyard. Please preserve this quiet, peaceful neighborhood. I know that's a big reason my parents bought our house here. One selling point of this neighborhood is being close to the city yet away from it.

The city has zoning in place to ensure that our neighborhood and "light industry" below our hill will be compatible. A gun club doesn't fit this area, because of the potential of it ruining one of the main features of this area. Guns make loud noise, and I don't see any proven evidence that this particular gun club won't produce sounds we will hear in our neighborhood either now or in the future as guns become more powerful. Please preserve the integrity of Pinecliff and do not allow this conditional use. It certainly doesn't promote public safety and health. Instead it will allow recreation for a few at the expense of the tranquility of many residents of Colorado Springs that have been part of this neighborhood long before the gun club owner bought this land.

Sincerely,
Alaina Oltrogge
5040 Cliff Point Circle East

McCauley, Erin

From: Dan & Marcia Oltrogge <oltroggedm@qwest.net>
Sent: Wednesday, December 11, 2013 11:30 PM
To: McCauley, Erin; Wysocki, Peter
Subject: Whistling Pines Gun Club Concerns

Erin,

I am a resident of 5040 Cliff Point Circle East, in the neighborhood above the proposed Whistling Pines Gun Club. Please include these questions and comments for the planning commission review.

I hope that the planning commission will consider that the one of the main appeals of this established neighborhood of Pinecliff is the tranquility it offers while still being easily accessible to the city. The existing light industry, for which the area to the south of the Pinecliff bluff is zoned, is compatible with a residential neighborhood, because the businesses are quiet and do not produce objectionable noises or impulsive sounds. Since it appears likely that the gun club will exceed the city's noise thresholds for impulsive sounds and threaten the tranquility of this neighborhood, I do not see this proposed gun club as being compatible with a nearby neighborhood.

1. As came out in the neighborhood meetings, guns used at the gun club will be louder than the gun dBA levels used in the sound study. Jeff, the sound engineer, gave the dBA levels used for the study at 130 dBA for a rifle and 125 dbA for a hand gun. The gun owner confirmed that guns of higher calibers (.50 cal BMG given as an example) can and will be used at the club. These guns, and any gun louder than that used in the study, will cause the noise levels to exceed 45 dBA in our neighborhood.
2. Gun technology will continue to evolve. In the future, more powerful, and therefore louder, guns used at the facility will cause sounds to exceed the permitted sound levels in our neighborhood. How would this be monitored once the gun club is established?
3. Gun dBA levels can be measured in different ways. The study actually used an averaged sound level as opposed to an instantaneous sound level which more accurately represents the sound. This should be considered as an additional uncertainty in the study showing that the sound will not exceed the 45 dBA level.
4. The ambient noise sounds recorded by the sound study were taken only during the week. Residents of our neighborhoods spend time on evenings and weekends outside, and many houses up here have beautiful decks that are extensions of our homes in the summer. We also keep our windows open in good weather, since most of us lack A/C. The estimated 45 dBA rating may well exceed the weekend ambient noise, making the sounds audible when we most want to enjoy being outside and also be heard inside our homes.
5. I question the sound study's findings of ambient noise level being consistent throughout the day. As a regular dog walker around Cliff Point Circle, I can say with certainty that the ambient sound in the neighborhood is quieter when I walk my dog in the evenings and weekends than during the day or especially near "rush hour."
6. Guns shots are impulsive and irregular. As the sound engineer stated, that makes them more audible. Consider what it's like to have to listen to a barking dog, also an impulsive and irregular sound. Even at a low volume, which may be under the noise ordinance maximum, a barking dog is a disturbance to one's peace and tranquility, and existing city ordinances prevent dogs from barking for longer than 15 minutes. In a similar manner, we do not want the possibility of persistent impulsive sounds to exist in our neighborhood. A continuous barrage of gunshots, even at that 45 dBA limit or lower, will be like a barking dog.

7. No margins of error were assumed in the sound study. The sound engineer's estimated that the uncertainty around his number may be 2-3 dBA, and that just his estimate. Adding 3 dBA to 45 dBA only increases the possibility that we will hear sound. Is this compatible with a neighborhood environment?
8. In addition to the 45 dBA sound level threshold at residential property lines, Colorado Springs city ordinance 9.8.103 – 9.8.104 indicates that the gun club design must have sound levels at or lower than 60 dBA within 25 feet of the proposed gun club property on all sides. The noise at the existing businesses was never discussed at the neighborhood meeting. Wouldn't redirecting the fans, as discussed in the meeting, just make the noise level louder to the south?
9. We have been told that the new design includes an upper level patio (although we have yet to see a current design). If the doors to this patio are open on a nice summer day (when residents of Pinecliff will also be outside), will the gun noise be louder and potentially exceed the 45 dBA limit? Were other noises (e.g. loud or raucous conversation on the deck) included in the overall sound measurements? This brings to mind a restaurant/café set-up, another use which this area is not zoned for.
10. We moved into this neighborhood when our children were young. If the gun club had existed at that point, I would have been less likely to consider this neighborhood just from the prospect of the gun club bringing people with guns into the area. In addition, although the gun club will have security measures to prevent break-ins, the prospect of living near a business that may be more of a target for crime than the existing industry might be a deterrent to others considering buying in this neighborhood. Both these cases may negatively impact our property values.
11. Who determines the actual sound level produced by the gun club? Once it's built, would a study be done using all possible types of weapons that would be fired in the gun club, including simultaneous firing? What guarantee do we have that if the sounds are audible, that the situation will be rectified, and to whose satisfaction and in what time frame?

In summary, a gun club, while being a business I would certainly consider frequenting, will have a negative impact upon our neighborhood and doesn't seem to be a compatible with a residential neighborhood. This is surely not the only property that could fit a 100-yard rifle range. Other land exists in this city that would better suit the purpose.

Sincerely,
Marcia Oltrogge
5040 Cliff Point Circle East
Colorado Springs, CO 80919

McCauley, Erin

From: Dan Oltrogge <Dan_Oltrogge@qwest.net>
Sent: Wednesday, December 11, 2013 12:27 PM
To: McCauley, Erin
Cc: Wysocki, Peter
Subject: FW: Pinecliff Proposed Gun Club Questions and Concerns

Erin --

My wife participated in the recent gun club informational meeting and exchange that you conducted. Thanks very much for setting up that meeting, as it was very helpful to my wife and I to get a better understanding of the project, the status of the application, current design plans and accompanying studies and regulations.

As a neighbor of Pinecliff near the proposed site, I have key concerns about the club that I want to make for the record. As a gun owner, I am definitely not opposed to the concept of a gun club, as long as there is *no impact* (i.e. ZERO) to our neighborhood and its current peace and tranquility.

By way of background, I am an experienced aerospace engineer with 28 years of modeling and simulation background, including propagation of RF energy, free space path loss, and wave modeling. Here are some of my concerns:

- (1) Everything I have seen and heard from the acoustics study and presentation indicates that the sound engineer worked with the gun club owner to try to just barely "eke out" a 45 dBA limit; they added insulation, modified roofing, changed doors, etc. Unfortunately, there are always errors in acoustic modeling (potentially substantial), and I have yet to hear that there were any suitable margins of safety incorporated into the study. Such margins of safety reflect best engineering practice, making me seriously question the acoustic engineer's qualifications and analyses. The acoustics engineer admits that there could be 2-3 dBA of error. But their own estimates indicate that the sound PLUS that error would exceed city allowable limits. This should be rejected by the city on that basis alone.
- (2) When assessing compliance with 45 dBA impulsive ordinance, it is important to ensure compliance with worst case atmospheric absorption and not just a typical case. Per ISO standard "ISO 9613-1:1993 – Acoustics – Noise Absorption by Air", proper estimates of this should be assessed based upon ambient pressure at our altitude (6650 feet) and common temperatures (-5 C for worst case) and 10% humidity (for winter, worst case). A simple on-line calculator at <http://www.sengpielaudio.com/calculator-air.htm> indicates only 2.4 dBA per 100 meters, which for the closest home comes to -5.4 dBA due to (crude estimate of worst case at sea level; would be even less at our altitude).
- (3) While I understand the acoustic engineer's time averaging of the sound wave (obtaining 130 for rifle and 125 for handgun, are much lower than other surveys), this approach is not a conservative one and is biased in favor of the gun club owner. What noise statistics and data does can the gun club provide us specific to the class and caliber of guns it plans to allow on the premises? Had he adopted the instantaneous peak of the acoustic wave (potentially much louder, e.g. 160 dBA, which would likely require the builder to install much more baffling for the peak noise not to be heard), I would have been more inclined to adopt their study as credible.
- (4) The apparent lack of post-build verifications of the engineer's software, modeling and sound propagation predictions, other than a statistically irrelevant sample of a single rooftop measurement by the acoustic engineer, is of immediate concern and give us no assurance that the engineer's analysis reflects reality. Standard practice in modeling and simulation is to perform independent verification and validation, yet there apparently is none for this acoustic engineer analysis.
- (5) Regarding the acoustic engineer's measurements of existing sound levels at 10pm, 6am on Mon and Wed: Sound levels are very dynamic; background noise depend on day of week, time of day, and even time of

- year. Taking measurements during the busiest times of the week is insufficient and do not reflect the much quieter times in our neighborhood (weekends, evenings).
- (6) Based upon the current study's marginal compliance, if the building failed to work as designed by even just 5 dBA (a reasonable margin of safety), a simple reverse of the free space path loss equations indicates that houses as far away as 313 meters would be affected. Based on Google Earth quick look, I count as many as 15 homes that would then fall into their sphere of influence.
 - (7) The acoustics engineer apparently did not account for the lack of sound dampening in cold temperatures and "dry air" (e.g. all winter). As I'd mentioned to you previously, this means that in the cold of winter neighbors will receive more sound in and at their properties than the current acoustics study predicts, meaning that it will likely exceed city limits.
 - (8) It wasn't clear whether the acoustic engineer estimated gun noise at the nearest house (less conservative), or the worst-case transmitted sound spanning each home owner's property/lot. If the former, then this is a flaw in the study. Terrain (as the acoustic engineer admits) can play a role in sound reflectance, and in cases with varying terrain (such as here at Pinecliff), houses (or even portions of lots) that are not the closest may receive more noise. The gun club owner's statement questioning whether "you will use your deck much anyway" implies that he knows that sound could be heard in the house lot.
 - (9) I did not see any reference to assessing sound protection when both outer and inner doors are open due to customer traffic. Will the gun noise be well above predictions, or are they employing a construction technique which prevents noise transmission during customer entry/exit?
 - (10) The acoustic studies are meaningless unless it reflects the types and noise production of all of the guns that the gun club will allow. What will the gun club do to ensure that the guns of its owners do not exceed a certain noise limit? The gun club should be required to ban any/all guns louder than those analyzed by acoustic simulation to not exceed 145 dBA minus a sufficient margin of error (e.g. 5 dBA). Discussion at the meeting indicated that a gun database was utilized, but that it did not cover all of the guns (and resulting noise levels) that the gun club owner plans to allow at the club. Bob's argument that .50 Cal guns are expensive to fire (while true) is not a sufficient "self-governing" mechanism and indicates a gun club owner perspective that it'd be okay to exceed city limits as long as it's not too frequent. From a neighborhood and city/legal perspective, it should never be acceptable to exceed the legal limit.
 - (11) What injunctions and/or confirmations of the proposed sound mitigation techniques will be incorporated into the potential building phase to ensure that their proposed sound suppression techniques work as advertised? What post-construction evaluations and remediation will the city require and conduct in order to ensure that if the gun club doesn't work as advertised it must be fixed or risk closure or revocation of the conditional use permit? In my view, imposing fines on the company would not help the neighborhood regain our "quiet nights on the deck" that we currently enjoy.
 - (12) The gun club has hired a gun club-favorable engineer; does the city have any such expertise? Who is the final (city) authority to determine whether a business's noise is appropriate? It remains unclear who is qualified to make such a determination, both in the pre-build phase and post-construction (is it the police?).
 - (13) Given that normal Garden of the Gods traffic noise likely exceeds our 45 dBA ordinance, how does the city plan to test the proposed gun club to ensure compliance, especially in the upward (roof) direction? Is the gun club willing to conduct city-verified testing to prove it, once the project is completed?
 - (14) The presence of impulsive noise from this proposed project would adversely impact property values and the peace and tranquility of the neighborhood.
 - (15) At the recent (3 Dec) meeting, the gun club owner had a new building design which has yet to be shared with our neighborhood, and I'm guessing that the city has not received this either. As such, it'd seem inappropriate and outside of normal expectations to require our neighborhood to provide comments on a design that it still hasn't seen. Also, I've only seen one "acoustic study" to date. Note that as each significant design modification is made, a new acoustic study must accompany it.

In conclusion, there are many issues which remain inadequately addressed and/or unanswered. I've identified a number of issues that are, in my opinion, key shortfalls in the existing acoustical study and application process:

- specific types of guns modeled in the acoustic study, and a lack of regimen by the owner to ensure that their customers would comply with the allowable noise limits assumed via these specific types

- owner-favorable assumptions on time-averaging vs instantaneous peak waves
- owner-favorable assumptions about atmospheric dampening using non-worst-case atmospheric conditions
- owner-favorable lack of margins of error (e.g. 5 dB)
- lack of independent verification that the acoustic engineer's results reflect reality
- a seeming unwillingness to share the current design
- inadequate sampling and portrayal of background noise to reflect how quiet our neighborhood can truly be during "off-hours"

I am hopeful that these issues, coupled with our existing ordinances, will be carefully considered in the city's decision process for this project.

Thanks much for your consideration,
Thanks,

Dan

Daniel L. Oltrogge
Colo. Springs, CO
dan_oltrogge@qwest.net

McCauley, Erin

From: Ellyn Feldman <egfeldman@yahoo.com>
Sent: Saturday, December 21, 2013 2:37 PM
To: McCauley, Erin
Subject: Whistling Pines Gun Club

Dear Erin,

We have lived in the Pinecliff neighborhood for the last 26 years and have serious concerns regarding Whistling Pines Gun Club wanting to move below Cliff Point Circle. We are concerned that the ABOVE-Ground rifle range is not compatible with the residential properties and the noise levels that would be created in the peaceful residential neighborhood area. We are concerned that since .50 caliber machine guns have not been tested for decibel levels by their acoustical engineer we have as residents NO recourse should this be noisy and effect the neighborhood. Property values would drop considerably and we fear that our quality of life will be compromised. We oppose the developer's request for changing the PIP-2 zone district.

*~Ellyn and Stan Feldman~
4915 Sunbird Cliffs Drive
Colorado Springs, CO 80919*

McCauley, Erin

From: Bob Russell <bob@russellmail.com>
Sent: Saturday, December 21, 2013 2:22 PM
To: McCauley, Erin
Cc: Boop, Betty
Subject: Proposed Gun Club

Hi Erin,

My wife and I have lived in the Pinecliff neighborhood for over 20 years. I understand that the Whistling Pines Gun Club wants to build a range at 4750 Peace Palace Point. We're opposed to this—not because it may affect us personally—but because we don't believe this type of facility should be built near any residential areas. There are many locations across our city or county that are better suited for this type of activity. Two examples are industrial areas along North Nevada north of E. Fillmore or undeveloped areas within the county.

Thanks,

Bob and Betty Russell
345 Cliff Falls Court
719-522-1280

McCauley, Erin

From: Huddleston, James <James.Huddleston@allegion.com>
Sent: Friday, December 20, 2013 1:05 PM
To: McCauley, Erin
Subject: public concern with whistling pines gun club proposal

As a homeowner and tax-paying citizen of El Paso County, I am writing as it has come to my attention that a for profit business entitled "Whistling Pines Gun Club" has plans to erect a 20K sqft gun club within feet of residential property in the Pine Cliffs subdivision near Garden of the Gods and I-25.

My concern specifically is with the negative impact on home values as result of the noise to be emanated from the gun club. Home values operate in domino fashion and limiting the full potential of home values due to obvious concerns with noise and overall quality of life not only impacts the neighboring homes, but also subsequent home values throughout Colorado Springs.

I have not seen the business plan for the gun club, but I can assume they either have a low cost of ownership at that location or are purporting that local demographics specifically in that neighborhood support the location. If nearby residents are against the gun club, then location is not a marketable asset for this site specifically. If the business plans states central location overall then they are targeting a population willing to drive 5-10 miles regardless, and a multitude of locations not in a residential neighborhood would fit their business model. If it is low cost of ownership, the City of Colorado Springs then needs to put the interests of home values and the resulting impact that positive valuation has on the local economy, which far outpaces a private companies ability for influx, and not allow a single business entity to offset that capability.

There is plenty of land available in non-residential areas of El Paso County to allow this business to operate without impacting home valuations and the overall health of the city's economics.

Sincerely,
James Huddleston

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McCauley, Erin

From: Paul <stepe19@aol.com>
Sent: Friday, December 20, 2013 9:44 AM
To: McCauley, Erin; Wysocki, Peter
Cc: pattycarb@msn.com; llmulready@gmail.com; president@Pinecliff-HOA.com
Subject: Comments re Whistling Pines Gun Club

We are strongly opposed to the proposed gun club because of its adverse impact on the Pinecliff area. Consider the following points:

1. The noise impact on the neighborhood would be horrendous. With the proposed 17 lanes and considering a meager estimate of one gun shot per minute per lane, that would produce an average of one new bang every 4 seconds or less. Furthermore, this noise pollution could go on for hours each day. Such a situation would be intolerable noise pollution. The addition of a machine gun lane would greatly worsen the impact.
2. Gunshot noise travels for miles. When the gun range above Garden of the Gods Park was open, gunshots could be heard within Pinecliff, and that range was miles away. Although the noise level was moderately low, it was still a definite irritation, especially because of the repetitiveness.
3. The people living along Cliff Point Circle East already are impacted by the machinery noise from Western Forge, especially when the metal stamping machines are in operation. The gun club noise pollution would make the Western Forge noise seem like a whisper. We recognize that Western Forge existed before Pinecliff so the acceptability of the noise was left to the discretion of buyers for the neighboring properties, but nevertheless, it likely had an impact on the selling price of the homes. However, now Pinecliff exists and the gun club doesn't belong in the area.
4. The noise pollution would have an enormously negative impact on Pinecliff property values, which of course means lower revenue from

property taxes. Considering the high value of hundreds of Pinecliff properties, this could produce a greater revenue loss to the City of Colorado Springs than the taxes obtained from the gun club.

Finally, in our opinion, a gun firing range should not be permitted anywhere within or close to the city limits.

Thank you for your consideration of this matter.

Paul E. & Margaret R. Steichen
5231 Cliff Point Cir W
Colorado Springs, CO 80919
719 528-7068

McCauley, Erin

From: Dohm, Karl <Karl.Dohm@lsi.com>
Sent: Thursday, December 19, 2013 2:03 PM
To: McCauley, Erin; Wysocki, Peter
Cc: karl.dohm@gmail.com
Subject: Re: Whistling Pines Gun Club

Hi Erin and Peter

I'm a resident living at 4995 Cliff Point Circle in the Rockrimmon area, and I'm writing to express concern over the proposed Whistling Pines Gun Club. I live within about 700 feet of the proposed site.

The main concern I have is the potential for noise pollution. The box canyon to the northeast of the property in question is incredibly efficient at transmitting sound. There are at least 40 homes on the rim of this canyon, all of which have the potential to hear a stream of near constant rat-a-tat-tat sound emanating from this facility.



My preference is that the facility not be built in this location. I think it's just inviting trouble. But if the facility is built, my request is that City Planning Commission impose a restriction on allowable noise emissions. The proposal would be that they produce no more than 10Db audible, as measured at the closest point to the facility on Cliff Point Circle. In order to avoid any conflict of interest, measurements would need to be conducted by an independent 3rd party firm in accordance with the Occupational Safety and Health OSHA Technical Manual TED01-00-015, Chapter 5, OSHA Noise and Hearing Conservation, and applicable ANSI standards.

The planning commission should require the facility to provide funding to the 3rd party firm to conduct a test on a yearly basis, on a randomly chosen day with normal activity at the facility. If any audible noise level > 10Db is detected from the facility, their license to operate as a business should be revoked. The Gun Club should commit in advance to construction of the facility that they will never emit more than 10Db audible noise as measured on the closest point of Cliff Point Circle.

I think this approach represents a reasonable compromise. It allows the business to operate, and at the same time ensures that noise pollution will not be a factor that destroys the tranquility of the existing neighborhood.

Please let me know if you have any questions

I'd be happy to allow you to come on my land and experience the sound amplification effect of the box canyon.

Thanks

Karl Dohm

719-964-7582

McCauley, Erin

From: kar.colospgs@comcast.net
Sent: Thursday, December 19, 2013 11:35 PM
To: McCauley, Erin; pwwysocki@springsgov.com
Subject: concerns on Whistling Pines Gun Club Plans

City Planning Department representatives,

As a long time (since 1981) resident in the Pinecliff neighborhood I have concerns on the potential plans for the Whistling Pines Gun Club being located so close to a residential neighborhood. In general I have concerns on this proposal causing an adverse impact on our residential property values, our quality of life and the noise level generated from such a club being so close.

In general I have no issues with gun ownership nor gun clubs, however the proximity to our residential neighborhood is where the concern arises. It would seem to me a more remote location for a gun club should be pursued and not one directly below our homes.

What plans did the developer share to potentially mitigate noise? What guarantee exists that if approved, they resolve noise issues? Why deviate from the existing zoning regulations to allow this development.

Please consider these issues and concerns as well as understand similar issues have occurred in other states where promises were made but never resolved that significantly impacted residences.

Thank you for your time and pursuit of an appropriate resolution for me and our neighborhood.

Keith Roberts
5140 Hopner Ct
Colo Spgs, Co 80919

McCauley, Erin

From: Barbara Bruckner <barbru4@yahoo.com>
Sent: Thursday, December 19, 2013 3:27 PM
To: McCauley, Erin; Wysocki, Peter
Subject: Gun Club in Pinecliff

I just received information that a gun club may open in the Pinecliff area. I live in Pinecliff and do not want a gun club in my area. I feel that it will be quite disturbing and destroy the peaceful area in which I reside. I was told that the residents living on the cliff will be affected and that is where I live. There are many more areas in Colorado Springs that land without housing areas in close proximity.

Barbara Bruckner
1315 Wentwood Drive
Colorado Springs, CO 80919

McCauley, Erin

From: matongenel@comcast.net
Sent: Thursday, December 19, 2013 2:10 PM
To: McCauley, Erin
Subject: whistling pines gun club

s seems like a terrible idea to me. it should be located in the wildernes
gene and betty lou maton 5232 cliff point cr/ west/

McCauley, Erin

From: John Long <john.c.long@icloud.com>
Sent: Thursday, December 19, 2013 2:10 PM
To: McCauley, Erin
Cc: Kelli Long
Subject: Whistling Pines Gun Club Development

Erin,

My wife and I have lived in our current home at 4980 Nightshade Circle for almost 21 years and we really enjoyed raising our two daughters in the Pinecliff subdivision. This is the first time I have taken the time to way in on any pending development issues but I fell strongly that the request for the Gun Club should be denied.

Please let me know what I can do to help prevent this from moving forward. Thank you in advance for your help.

McCauley, Erin

From: Wulf Schwerdtfeger <gws67@comcast.net>
Sent: Wednesday, December 18, 2013 9:18 AM
To: McCauley, Erin
Cc: Wysocki, Peter
Subject: Whistling Pines Gun Club

Dear Erin, dear Peter,

As you have heard from many other concerned residents of the Pinecliff neighborhood, the fact that you (the City) allow such an establishment in a residential area is beyond comprehension, more so given the fact that said establishment is moving the goal line whenever it seems fit for them. Now they even want to allow .50 caliber machine guns ?? Are they training folks for another school shooting ??

It is sad that this happening in the middle of an residential area, would you allow it near a school also ??

Concerned regards,

Wulf Schwerdtfeger
5261 Cliff Point Circle
West.

McCauley, Erin

From: Rick Patenaude <rick.patenaude@ims-cs.com>
Sent: Wednesday, December 18, 2013 5:55 AM
To: McCauley, Erin
Subject: Concerned about Gun Club near Pine Cliff

Mr McCauley,

I am writing to ask you to disapprove the development of a gun club on Peace Palace Point, near Elkton Drive.

I believe the gun club will negatively affect property values in my neighborhood and our quality of life.

I believe the gun club will be too noisy and potentially unsafe. This type business is not appropriate so close to a residential neighborhood.

Thank you

Rick Patenaude
715 Point of the Pines Dr
Colorado Springs, CO 80919

McCauley, Erin

From: jan.kolnik@comcast.net
Sent: Tuesday, December 17, 2013 7:23 PM
To: McCauley, Erin
Subject: Re: Whistling Pines Gun Club planning to open a facility in GoG area - we want to take the opportunity to raise concern and voice opposition

Hello,

This email is in response to recently announced plans by the Whistling Pines Gun club, to build a shooting range in the Garden of the Gods area, as e.g. described here:

<http://www.whistlingpinesgunclub.com/index.php/whistling-pines-gun-club-west/>

The location of the planned gun club is in fact very close to Pinecliff, our residential neighborhood (we live here, we own a house located on Cliff Point Circle), and we would like to take this opportunity to voice our great concern about the impact this will have on our lives, property values and quality of life in general.

Any simple internet search on the subject of gun noise finds numerous examples of how cities allowing gun clubs in or close to the residential neighborhoods caused numerous problems for residents, starting with very annoying noise, and ending with impact on property values (yes, the properties the residents own here cost a lot of effort and financial means to build, maintain and improve, and could be very negatively affected.)

One such example is e.g.

<http://www.fixthegunnoise.com/>

Just a short quote from the website "...We are Montgomery and Blue Ash residents against gun noise produced by the Point Blank Gun Range in Blue Ash Ohio. The range was opened in November of 2012 and ever since that time, the areas to the east, west and south of the range have been exposed to unwanted nuisance of the sounds of gun fire.

The gun shots are audible inside our homes and in our yards and on our decks. The gun shots can be heard 7 days a week and start as early as 8:30am and last until 10pm even on weekends and sometimes outside these hours...."

We would like to ask the city planners to imagine them, and their families living in such situation and such conditions. We hope this will make you understand why we are so much concerned about the Whistling Pines Gun Club plans to bring their presence to our neighborhood, contaminating it by gun noise and leaving it behind them when they go home to places where none of this is affecting them - by public records the owners of the gun club live in the vicinity of parks, not gun clubs.

We hope that the City of Colorado Springs will take all this into account when reviewing their request, and ultimately deny it.

Colorado Springs is a beautiful place, and fortunately it still has a lot of locations and open space where gun clubs can open their facilities, not close to residential neighborhoods.

McCauley, Erin

From: Jim <holtjim@pcisys.net>
Sent: Tuesday, December 17, 2013 4:48 PM
To: McCauley, Erin
Subject: Gun Club in Pinecliff.

Dear Erin

We are writing to strongly object to the proposed gun club that would be located near our old and established subdivision. There are several issues I think with this location. The issues are 1. Noise – This location is just below Popes Bluff and any noise will carry up and into our subdivision. I understand that the developer intends to allow the use of 50 CALIBER MACHINE GUNS!! 2. Property Values – No one wants to live or buy a home near a rifle range especially a family with children. This will undoubtedly negatively affect our property values. Quality of Life – We have a very quiet neighborhood now and the increase in noise and traffic will degrade that.

Please do the right thing and not allow this project to proceed. It should be located in the county somewhere in an open area that is away from homes and families. This developer has tried this in the past and it was denied – please deny it again.

Sincerely

James Lee Holt
Donna F. Holt

McCauley, Erin

From: Chris Ito <chrait@yahoo.com>
Sent: Tuesday, December 17, 2013 4:08 PM
To: McCauley, Erin
Subject: Proposed Shooting Club

As a resident of Pinecliff for 30 years, I have found the area to be very quiet because of its location on Popes Bluff above the city in general. I'm retired and spend a lot of time outside so you do hear the traffic noise from I-25, Garden of the Gods road, and sometimes Centennial Blvd. Especially, you can hear emergency vehicles with sirens and trucks using air brakes.

Because of this I went to look at the location of the proposed Whistling Pines Gun Club and could not believe that this is the site where they want to build. As it turns out, I have been riding my mountain bike in that exact area for over 15 years. It sits right at the base of Popes Bluff within several hundred vertical feet of the residential houses in Pinecliff. It may not seem so close because the nearest houses are above the elevation of the proposed gun club, but any noise will travel up the rock face of Popes Bluff and affect us in Pinecliff. It is the same principle as the concrete walls which surround I-25. They are intended to reflect the highway noise upward. Unfortunately, Pinecliff lies above the proposed gun club so approving the gun club is akin to putting it on the border of a residential neighborhood without any clearance.

I was also concerned that I did not receive notification via postcard of the proposed gun club. I live within 300 feet of the point on Popes Bluff which lies directly above the proposed gun club. You cannot count the vertical height of Popes Bluff in your "500 foot" radius because in this particular situation it is noise reflection that is the problem and not physical location. But, no harm was done and I was able to respond.

In closing, I hope you will factor in my concerns into your decision. Of course progress must move on, but in this case I strongly feel it is the wrong thing to do because of its proximity to a residential neighborhood. Thank you for your consideration.

Sincerely,

Chris Ito
1145 Point of the Pines Drive
Colorado Springs 80919

chrait@yahoo.com

McCauley, Erin

From: Clyde Lawson <clydeselva@gmail.com>
Sent: Monday, December 16, 2013 1:02 PM
To: McCauley, Erin
Subject: Ref. -Gun Club

We live at 240 Cliff Falls Crt.. 80919

We do not feel a gun club is right for our community.
Thank you for protecting our community!!!!!!!!!!

Thank you-Clyde and Selva Lawson

ClydeSelva@gmail.com

McCauley, Erin

From: Ken Knipp <khknipp@gmail.com>
Sent: Sunday, December 15, 2013 4:11 PM
To: McCauley, Erin
Subject: Proposed gun club adjacent to Pinecliff

Dear Ms. McCauley,

My wife and I are seven year residents of Pinecliff. We are writing to request that the request by the Whistling Pines Gun Club for a "Conditional Use" change request for the proposed shooting range be denied.

The original plans for this building included a below ground shooting range. The current plans are for an above ground range. The noise generated by such proposed use would diminish the quality of life and property values to the adjacent properties and to other properties in the neighborhood.

Please take our concerns into account as you consider this request.

Thank you very much.

Sincerely,

Ken and Vickie Knipp
4937 Nightshade Circle
Colorado Springs, Colorado

McCauley, Erin

From: Geoff Chance <gchance@aol.com>
Sent: Saturday, December 14, 2013 6:31 PM
To: McCauley, Erin
Subject: gun club

Hi Erin,

My husband drove out to the Whispering Pines Gun Club that is already built this afternoon. He described the noise level from outside the building as being like having construction going on at a nearby house. This is what the Pinecliff residents who live above the Whispering Pines projected would have to contend with on a daily basis. It could be even more noise since the proposed gun club will also have a rifle range. As I have said before, I'm not opposed to guns, but I am concerned about the daily noise some Pinecliff residents would have if the gun club is built. I would hope Whispering Pines might find a location that is farther from a residential area.

Thanks for your time,
Lois Chance

McCauley, Erin

From: frank@molli.us
Sent: Friday, December 13, 2013 2:32 PM
To: McCauley, Erin
Subject: Shooting Range In Populated Area

Erin,

I understand that you are the one to gather concerns about the proposed indoor shooting range near Centennial and Garden of the Gods. I am a Pinecliff resident and placing such a business in a populated area concerns me greatly. First, let's consider the safety issues. It doesn't matter how high of a safety standard under which one would construct such a building, it is a simple fact that nothing man does can be secured to a 100% certainty level. For example, suppose the design is such that the containment of the bullets within the structure will be 99.99% certain. That would leave a 1 out of 10,000 chance that the containment structure would fail. How many rounds will be fired in a year? Say the shooting range is open 300 days a year, and they have 20 customers a day shooting 50 rounds each, that is 300,000 rounds per year. With a 99.99% certainty of containment, the odds of the containment structure failing is 1 out of 10,000. Is that a potential of 30 bullets leaving the containment structure? Suddenly a 99.99% certainty doesn't sound so great.... Of course the point is that man cannot build a perfect system. There will always be some failure rate. So why take the chance of placing such a system in an area where its failure could have great consequences.

Beyond the failure rate of the containment system, there is the much more likely scenario of an accident. I could easily see a patron of the shooting range forget to remove all bullets from a gun after his session and then proceed outside of the containment structure and accidentally discharge his weapon. Of course, the same issue presents itself before entry. A patron could forget he had a bullet chambered in his gun on his way to the range. Hopefully all gun owners will practice extreme safety, but why place citizens of Colorado Springs in jeopardy from the errant patron who may not be as safety conscious as most other gun owners.

Erin, thanks for you efforts in this. And by the way, I am a life member of the National Rifle Association (NRA) and I do not think this location for a shooting range is a good idea for the city.

Thank you,

Frank Molli

McCauley, Erin

From: Leonie Cramer <leoniempc@msn.com>
Sent: Friday, December 13, 2013 11:44 AM
To: McCauley, Erin
Cc: Brenda; Bruce Hutchison; Kevin Trujillo; leoniempc@msn.com; Lisa Taskerud; Peterson, Carl [USA]; Steve Shumway; weispring@comcast.net
Subject: Whitling Pines Gun Club proposed development

Dear Ms. McCauley,

I have lived in Pinecliff for 13 years. We chose this neighborhood for its peaceful natural setting. I am concerned how the proposed gun club is going to affect my neighbors who live on the cliff above the proposed development site. From what I gather from the sound study they will hear constant 'popping' sounds. These sounds will be very distinct and therefore different from general ambient noise. A repetitive sound is grinding on the nervous system. These people's life will be adversely affected by this facility and their quality of life will be diminished. Who wants to sit on their deck watching our beautiful mountains and constantly hear these shooting sounds? Personally I would never buy a home within hearing range of these shooting sounds thus I expect their property values will diminish as a consequence of building this facility.

I urge you to request more sound proofing and another sound study or deny this application.

Sincerely,
Leonie Cramer

McCauley, Erin

From: Jean Muller <jmacmul@yahoo.com>
Sent: Friday, December 13, 2013 9:15 AM
To: McCauley, Erin
Subject: Whistling Pines Gun Club

Dear Ms. McCauley,

As a concerned Pinecliff resident, I am writing to voice my opposition to the Whistling Pines Gun club proposed location. I previously lived on Cliff Point Circle West and am concerned about having a gun club that close to our residential area, particularly the homes located on that street and others right above the club. There are several potential detrimental impacts to our area from having an above-ground rifle range, which plans to allow machine guns, located there. Noise levels are undetermined for some of these guns in the proposed building, and that noise could carry right up the bluff to the homes above, 12 hours a day, 6 days a week. This could definitely impact quality of life and property values for impacted homes.

In addition, traffic on Elkton is already heavy at times due to all of the businesses on it, and it is not a road designed for heavy traffic. We have only two ingress/egress routes to our development and many residents access/leave it via Elkton. Significantly increased traffic on that street will have a definite negative impact on us, and could be particularly hazardous should another event like the Waldo Canyon fire occur.

Finally, there is always concern about individuals with guns and especially automatic weapons in an area such as this. Accidents do happen, and there are also those with evil intentions.

A better location for this club would be a much more remote area. This location, with its proximity to our residential area and off Elkton is not appropriate. I request that the conditional use permit be denied.

Sincerely yours,

Jean Macaulay Muller
5110 Golden Hills Ct.
Colorado Springs, CO 80919
719-362-3447
Sent from my iPhone

McCauley, Erin

From: Bryan Keys <bryankeys@bkeys.com>
Sent: Thursday, December 12, 2013 6:37 PM
To: McCauley, Erin
Subject: CPC CU 13-00077

Erin,

I am a property owner in the Pinecliff neighborhood and would like to go on record opposing the Whistling Pines Gun Club in the PIP-2 zone. I am aware of other indoor gun clubs adjacent to residential zones that have caused a lot of concerns and noise pollution issues with the residents. I don't believe this is a compatible use.

Thanks for listening,

Bryan Keys

President
Bryan Keys & Associates, p.c.
417 South Cascade Avenue
Colorado Springs, CO 80903
(719) 634-3751 Phone
BryanKeys@bkeys.com



McCauley, Erin

From: Preston, James L CIV (US) <james.l.preston2.civ@mail.mil>
Sent: Thursday, December 12, 2013 10:34 AM
To: McCauley, Erin
Cc: pcarb@msn.com
Subject: Pinecliff Whistling Pines Gun Club Proposal (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ms. Erin McCauley,

I am against the establishment of a functional firing range in a residential area.

There are several reasons which are not in conflict with firearm ownership, only with where people discharge their firearms.

Safety: Public Safety is a huge issue. Out of range discharge can impact an individual a mile away with lethal energy. What is under consideration is discharging firearms within the City Limits - isn't this an offense - with the exception of personal defense?

Noise: will change life as we know it. It will impact the wild life habitat as well as the residents and businesses. It will impact dog owners and cause animal behavioral issues (4th July every day). The County has opened an excellent range to the south on the eastern edge of Fort Carson. I could and can hear firearm discharges from Rampart Range area which is several miles away and now the noise generation is being moved to within 1,000 feet! Why was Rampart Range Closed? Was it not - because of the proximity of residences to the range!

Quality of Life: Increase in traffic - individual's carrying loaded weapons in a residential area. You cannot establish a "pot shop" but there is a consideration of a firing range. Potential increase in crime because ammunition and firearms are items the criminal wants and from a safety point can be then turned on the public.

Property Value: The homes in the area will devalue and the downstream impact is the City and County lose permanent tax revenue source. As well as their ire.

James Preston
Major and Special Agent (Retired)
US Army

McCauley, Erin

From: Kathryn Preston <kpredragon@aol.com>
Sent: Tuesday, December 10, 2013 6:06 PM
To: McCauley, Erin
Cc: KPreDragon@aol.com
Subject: Proposed indoor shooting range

We are writing to protest the establishment of an indoor shooting range right at the foot of a residential area! Surely this developer can find open land East of Colorado Springs. We are sure people who want to avail themselves of this facility will travel to it. **We are appalled** that the city would even consider this an acceptable location. We have visited the websites reporting on the impact of shooting ranges in residential areas. The following are reports on three "state of the art" gun clubs and the problems they have caused. We suggest you visit the following websites:

www.fixthegunnoise.com Blue Ash, Ohio
www.standard.net (Layton, UT gun)
google "Firing Line" Clovis, CA + www.fresnobee.com

It is our understanding that the developer originally stated that the firing range would be underground but now the plans reflect an **above ground** firing range! In addition, the developer plans to allow the firing of .50 caliber machine guns.

Why is this developer so determined to build his facility so near a residential area??????????????

"Something is rotten in Denmark".

We are residents of Pinecliff and we vehemently protest any change in zoning. Do not allow this individual to build right next to a residential area. The idea is insane!

McCauley, Erin

From: Linda Mulready <llmulready@gmail.com>
Sent: Tuesday, December 10, 2013 3:20 PM
To: McCauley, Erin
Cc: pwyssocki@springs.gov.com
Subject: Whistling Pines Gun Club

Dear Erin

I wanted to respond with my thoughts on the Dec. 3, 2013 Whistling Pines Gun Club meeting. First, no one disputes that Mr. and Mrs. Holmes are good business owners and that they attract a fine clientele. I am sure that is the basis of most of the letters of support that you have received concerning this issue. But that is not the point of our neighborhood's consternation with this proposed gun club. The supporters of the gun club wanted to concentrate on the good neighbor issue and not the fact that this facility is being built in such close proximity to residential homes and a special conditional use permit is being sought which would impact the peacefulness and value of this neighborhood.

My first concern was the notification process. Only two notification cards were originally sent out to this neighborhood of over 600 homes. My instincts tell me that this was done to perhaps slide this gun club project through as quickly and as quietly as possible with minimal interference from the surrounding affected neighborhood. As one of the homes that is identified as a "worst case" scenario I am very much concerned about the notification process or lack thereof and the sound and property value issues that are not being resolved.

After the Dec. 3 meeting I am convinced that we will, in fact be subjected to loud repetitive gun noise. I feel there were some flaws in Jeff Kwolekoski's Wave Sound study. Jeff cites that Pinecliff neighbors most likely will hear gun noise. Also, Wave Engineering admitted that no post implementation sound assessments were even done with any of his gun club sound projects. As such the validity of his predictions are in questions and considering the 45 dba that is their target there is no margin for error. Jeff is not able to list the names of the gun clubs he has worked on in the past. It is interesting that Mr. Holmes comment to our noise concern was "How often to you sit on your back deck?" How often is often enough? 50 times a year I sit on my deck? 49 times? 101 times? Or 1 time?

I would like to point to the Layton, Utah state of the art gun club, that was built with guarantees that no one would be able to hear gun noise. After the facility was built, surrounding residents could in fact clearly hear noise. As a result there is continued litigation involved with this case.

I am very much concerned with ammunition storage and the types of weapons that will be allowed to be discharged in this facility that is only 490 feet from residential homes.

I am concerned and curious about why no traffic study has been done to determine how this PROPOSED gun club will impact the already congested Garden of the Gods Road.

It is my understanding that a conditional use permit says it must be compatible with the surrounding area and not infringe on the peaceful environment and the quiet enjoyment of a home. Do you feel that this gun club truly meets these criterions?

Concerned homeowner

McCauley, Erin

From: Karen Bell <kbell96151@aol.com>
Sent: Tuesday, December 10, 2013 10:10 AM
To: McCauley, Erin
Cc: weisprings@comcast.net
Subject: File NoF:CPC CU 13-00077, conditional use request for indoor rifle range

Dear Ms. McCauley, The December 13th date to air our concerns regarding the Whistling Pines gun club development is fast approaching. The more I think about what I heard from the developer, all the experts and many Whistling Pines proponents, scattered throughout the audience, the greater my concern regarding the negative impact on all of us living on or near the Garden of the Gods side of the cliff. All of the proponents do not live here and have no idea how the noise and percussion can travel up the cliff!

Yesterday, I googled the site and saw how close the facility is to some families and their homes directly above. We live and pay our taxes to live in the Pinecliff neighborhood because of the beauty, privacy and peace. It was alarming to see this! They are in the direct path of any negative impact, including the privacy, safety, peacefulness of their homes. It is truly less than 500 ft. No matter how the company tries to mitigate these negative effects, there is no solid guarantee that building a gun/rifle range, once promised to be mostly underground, so close to our homes can be mitigated. There will be traffic coming and going, every hour or so, six days a week until 8:00 PM, including the weekend. They stated many of the gun owners bring their own guns/rifles. Is this safe, peaceful, private??

Sadly, If this facility is allowed to go ahead with their plans, I feel the quality of life, as we know it, will be forever changed. I ask the City to please reconsider their proposal. Overall, our home values will most likely decrease, along with our quality of life in our once quiet, peaceful neighborhood.

Respectfully,

Karen Bell
5010 Cliff Point Circle East
Colorado Springs, CO 80919

McCauley, Erin

From: Julie Crocfer <jcrocfer@comcast.net>
Sent: Sunday, December 08, 2013 9:14 PM
To: McCauley, Erin
Subject: Proposed gun club near Pinecliff neighborhood

Dear Erin:

I have recently become aware that there is a proposal to build Whistling Pines Gun Club near the Pinecliff neighborhood. As a resident of this neighborhood I do have some concerns regarding this proposal. We moved to this area of town 13 years ago. We loved the feeling of being in the mountains surrounded by wildlife, beautiful trees but most of all the quiet, restful feeling we sensed. I am anxious that even though the club is an indoor facility, there may be noise from the activities that still reverberate. I have two small children who play outside frequently and I am also concerned that the sound of gunshots may be scary to them.

It is only my opinion but I believe that a location farther away from a residential area would be a better choice for all concerned.

Thank you for taking the time to consider my concerns.

Julie Crocfer
5055 Cliff Point Circle East

McCauley, Erin

From: gilreese1@comcast.net
Sent: Sunday, December 08, 2013 4:11 PM
To: McCauley, Erin
Subject: Proposed Shooting Range

Dear Erin,

This email is in reference to the proposed construction of the Whispering Pines shooting range near the neighborhood of Pinecliff.

I attended the neighborhood meeting on December 3 conducted by the owners and their representatives and left the meeting with much doubt about what we were told. I assume that all of the representatives have a financial interest in the construction of this range. The most important concern to us who live near the proposed range is the probable noise that will be generated by high velocity rifles and handguns some of which are larger caliber than most of the rifles. The noise level expert told us that the predicted noise would be within a certain prescribed level but he would not affirm that gunshots would not be heard. We were also told that if the noise level was above the predicted level they would modify the structure to meet stricter standards, this poses more questions such as would the range be closed until the stricter standards are met and who would judge whether the new standards would be satisfactory.

I am a retired Army Officer and selected this nice quiet neighborhood to spend my retirement years. I was a combatant in the Korean and Vietnam wars so I am pro-gun and support those who want to maintain a high level of safety and proficiency with guns of their choice either for recreation or self protection, but in my opinion a facility such as this should be located in an area far away

from existing neighborhoods. Distance to drive should not be a consideration, many residents drive more than ten miles to work, shopping, gym, etc.

Summertime is deck time for many of us living on the ridge just above the proposed shooting range enjoy getting a little sun or just enjoying the quiet environment and the view this location provides. As a last thought, how accurate will these predictions be? Who knows what will be heard or not heard when the first high velocity rifle is fired particularly for those families who live almost directly above the proposed location.

Thank you for your consideration.

Gil Reese
4985 Cliff Point Circle East
Colorado Springs, CO 80919
Tel: 719-528-5133

McCauley, Erin

From: Lynn Bloomfield <ldbloomfield@gmail.com>
Sent: Wednesday, December 11, 2013 8:55 AM
To: McCauley, Erin
Subject: Whistling Pines gun club input

Erin,

Thank you for holding the community information meeting last week. As a resident of Pinecliff, I still have concerns regarding audible noise from the club in our neighborhood. The very short distance from houses, the amended plan for an above ground facility, and the noise from gunshots all concern me. The noise and percussion levels of other "state of the art" facilities indicate that this concern is well founded. As anyone who has ever lived in a second story apartment has experienced, sounds not heard at ground level are easily audible from above. The rocky bluff will exacerbate this situation. Additionally, gun noise is unlike any other noise - such as traffic. It instills a gut level fear response - particularly for those who have experienced gun violence. Gun noise perforating the air is disturbing, reduces property values, and negates outdoor time - something we value. I do not object to the gun club operating in an industrial commercial area away from neighborhoods, but this location is right below an established neighborhood. This is not the place for it. It impacts the quality of life for too many. Please consider how you would feel about hearing constant shots from your own residence.

I hope the gun club can find a more appropriate location which does not impact people in their homes.

Thank you for your time.

Sincerely,

Lynn Bloomfield

McCauley, Erin

From: David Bloomfield <david.r.bloomfield@gmail.com>
Sent: Sunday, December 08, 2013 8:39 PM
To: McCauley, Erin
Subject: Whistling Pines Gun Club

Dear Ms. McCauley,

Thank you for hosting the informational meeting on the proposed Whistling Pines Gun Club. After attending the meeting, I still have concerns that the the noise from the club will be audible in the Pinecliff neighborhood. Even if the 45 db limit is met, the distinct noise from the individual shots could be discernible to human hearing. The sound study ends with the statement that this is a possibility. While some city background noise is to be expected when living in an urban location, the sudden impact noise from the range would be much more intrusive.

Sincerely,

David Bloomfield

McCauley, Erin

From: Rockne Buraglio <rbburaglio@msn.com>
Sent: Wednesday, December 18, 2013 9:25 PM
To: McCauley, Erin
Subject: Whistling Pines Gun Club Development

Erin:

I do not have any concerns about the development and wanted to let you know my wife and I are in favor of it.

Regards - Rockne Buraglio

McCauley, Erin

From: The Slayton's <slayton@q.com>
Sent: Tuesday, December 10, 2013 11:15 AM
To: McCauley, Erin
Subject: Question(s) ref Whistling Pines Gun Club

CORRECTION:

My earlier e-mail listed the wrong proposed building address.

----- Original Message -----

From: The Slayton's
To: EMcCauley@springsgov.com
Sent: Tuesday, December 10, 2013 11:06 AM
Subject: Question(s) ref Whistling Pines Gun Club

If this new gun range is to be 100% indoors only, then I have no objection to the gun range being built at 4750 Peace Palace Point, Colo.Spgs., CO. It should be made clear that 'NO' outdoor range will be allowed now or in the future for any reason.

I have lived in the Pine Cliff area for over 23 years and I am a retired State of Colorado Peace Officer with 32 years of service.

Please confirm back to me if the proposed gun range has any request to have an outdoor range.

THANK YOU.....George M. Slayton

McCauley, Erin

From: Perry Swanson <perryswanson@live.com>
Sent: Wednesday, December 11, 2013 8:30 PM
To: McCauley, Erin
Subject: Comment on the Whistling Pines gun club

Greetings Erin McCauley – Thank you for your work on the neighborhood meeting about the proposed Whistling Pines gun club on Dec. 3. To me, it was an informative and productive meeting, especially about the noise issue.

Importantly, the owner promised to test and ensure noise from the club does not exceed 45 decibels, stricter than city requirements, before allowing the club to open. I asked him if he would agree to make that part of the conditional use permit with the city, and he indicated it was already part of the permit.

I'm writing now to emphasize how important it is to hold the owner to his word, and to raise questions about whether even that will be enough. Neighbors at the meeting heard a lot about decibel measurements and sound-dampening materials, but we have no context in which to interpret that information. We are not acoustical engineers; or at least I am not.

Here is my fear: I'll be in my house or outside, and I'll hear a continual, erratic "pop, pop, pop" of gunfire. The issue is not the number of decibels. The issue is damage to our quality of life because of a constant, pulsing, annoying sound that would be far worse than the steady hum we hear now. I did not hear anyone at the Dec. 3 meeting assure residents that the noise they fear will not materialize. They only dodged the issue by saying "I can't guarantee you'll never hear anything" and similar words. I would certainly not complain about some small, additional, periodic sound. What worries me is day after day of constant, irregular, pulsing noise that will not simply fade into the background.

At the meeting, I told the owner I would love to welcome him as a neighbor, and I meant it. I could not welcome a neighbor, though, who makes constant noise, disturbing me and the rest of the neighborhood, at the expense of our property values and quality of life. No one could. That's why city planning staff, and the planning commission, must impose strict regulation before the project is approved and – just as important – follow-up analysis to ensure compliance before the club is allowed to open. If the club cannot show clearly that its activities will not disturb the neighborhood, its conditional use permit should be denied.

Thank you.

Perry Swanson
5045 Cliff Point Circle East
Colorado Springs, CO 80919
719-232-4458
perryswanson@live.com

McCauley, Erin

From: Kurt Lesh, M.D. <klesh@csfpmd.com>
Sent: Monday, December 30, 2013 4:17 PM
To: McCauley, Erin
Subject: RE: Whistling Pines Gun Club Neighborhood Meeting

Dear Erin,

I attended the neighborhood meeting, not because I live there, yet. But we have considered moving to this area in the past, thus my interest. I currently live in Upper Skyway at this time. Best Regards, Kurt W. Lesh, MD

From: McCauley, Erin [mailto:EMcCauley@springsgov.com]
Sent: Monday, December 30, 2013 3:28 PM
To: Kurt Lesh, M.D.
Subject: RE: Whistling Pines Gun Club Neighborhood Meeting

Hello Dr. Lesh,

Could you give me an address of the property you represent so that I can better tie you in when I write up the staff report?

Thanks!

Erin McCauley AICP LEED AP BD+C

Planner II
Land Use Review Division
Planning & Development Team
30 S. Nevada Avenue, Suite 105
Colorado Springs, CO 80903
(719) 385-5369 - phone
(719) 385-5167 - fax
emccauley@springsgov.com



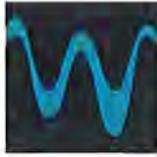
Please consider the environment before printing this email.

From: Kurt Lesh, M.D. [mailto:klesh@csfpmd.com]
Sent: Friday, December 13, 2013 7:02 PM
To: McCauley, Erin
Subject: Whistling Pines Gun Club Neighborhood Meeting

Dear Erin,

I attended this neighborhood meeting and found it very informative, professional and well presented. I think the plans for this gun club will serve its patrons well and be a good addition to the commercial property without imposing any hazards or noise problems for the adjacent residential neighborhood. Therefore, I would encourage your department to recommend approval of this facility. Thank you for your consideration in this matter.

Respectfully Submitted, Kurt W. Lesh



WaveEngineering

Acoustics, Noise & Vibration

December 27, 2013

Jeremy Hammers
Senior Project Manager
Hammers Construction, Inc.
1411 Woolsey Heights
Colorado Springs, Co. 80915

Re: Whistling Pines Gun Club West
Wave #1100A

Dear Jeremy,

We previously evaluated the impact of noise from the proposed Whistling Pines Gun Club West (4750 Peace Palace Point) on residential areas and its compliance with the City of Colorado Springs noise ordinance. That work was summarized in our report dated September 30, 2013. After the neighborhood meeting on December 3, 2013, you asked me to evaluate the subjective perception of noise around two existing gun clubs.

On December 13, 2013, I visited the existing Whistling Pines Gun Club (East) at 1412 Woolsey Heights in Colorado Springs, and Trigger Time Gun Club at 3575 Stagecoach Road South in Longmont.

I measured outdoor ambient noise levels near each facility and I listened at various locations 500' from each property to determine if noise from gunshots was audible. The distance of 500' was chosen because there was some discussion of noise levels at 500' at the neighborhood meeting. I compared the ambient noise levels at these locations to the ambient noise levels that I previously measured near the proposed Whistling Pines Gun Club West. I also attempted to measure gunshot noise levels in several locations around each property.

At the existing Whistling Pines East facility, a variety of handguns were fired during my observations, and a .300 Winchester Magnum rifle with a muzzle brake was fired. At the Trigger Time facility, a variety of handguns and rifles were fired during my observations.

It was not possible to measure gunshots 500' from each property due to the ambient noise in the area. In order to *estimate* the noise level at 500', I measured gunshot noise levels relatively close to the Whistling Pines Gun Club East and then calculated the noise level at 500' based on the attenuation expected due to the additional distance.

The two existing facilities and the surrounding areas are shown in the attached exhibits.



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www.WaveEngineering.co

Mr. Jeremy Hammers
December 27, 2013
Page 2

Existing Whistling Pines Gun Club (East)

The existing Whistling Pines East facility is located in an industrial park. Refer to the attached exhibit for my observations of gunshot noise and the measured ambient noise levels.

Gunshot noise that is audible outdoors is primarily from a door on the southeast side of the building. The door provides an exit directly from inside the shooting range, behind the firing line. The door is a standard insulated steel door with no special acoustical treatment. Noise also radiates from a lightweight sheet metal patch in the concrete building wall around an exhaust duct, near the east corner of the building.

I was not able to reliably measure sound levels 500' from the existing property because of interference from ambient noise. The ambient noise was mostly from traffic on Highway 24 and local streets. Since I was not able to measure gunshot noise levels at 500', I measured closer to the building in a parking lot across the street from the gun club. See the attached exhibit for the location. I used the noise level measured closer to estimate the noise level at 500' to be 61 dBA.

I understand that no special precautions were taken to reduce noise levels from this facility since it is located in the industrial park.

Trigger Time Gun Club

The Trigger Time Gun Club is located in a commercial area, but directly across the street from a residential area with single family homes. Refer to the attached exhibit for my observations of gunshot noise and the measured ambient noise levels.

Ambient noise was mostly from traffic on Highway 119 to the North and I-25 to the East.

The gunshot noise audible outdoors is primarily from two doors. One south-facing door exits from the rifle range, and one west-facing door exists from the handgun range. I understand that these doors are either sound-rated doors or standard doors with additional steel and insulation added.

The noise levels outside this building were noticeably less than those outside Whistling Pines East.

Conclusions

My observations and the measured ambient noise levels near the existing Whistling Pines Gun Club East are shown on the attached exhibit. The ambient noise levels at this site are higher than near the proposed Whistling Pines Gun Club in Colorado Springs, which was about 50 dBA.

■
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Mr. Jeremy Hammers
December 27, 2013
Page 3

My observations and the measured ambient noise levels near Trigger Time Gun Club in Longmont are shown on the attached exhibit. The ambient noise level at this site is also higher than near the proposed Whistling Pines Gun Club in Colorado Springs.

The existing Whistling Pines and Trigger Time Gun Clubs have doors that open directly from the shooting ranges. This is where most of the sound “escapes” from the building. The new Whistling Pines West range will *not* have doors directly from the ranges to outside the building and the noise levels radiating from the building will be significantly less than from these two facilities.

I observed noise levels 500' from the existing gun clubs. At the existing facilities, noise from gunshots was sometimes audible at 500' (in certain directions only). Gunshots from handguns were faint and hard to distinguish. Gunshots from rifles were still faint but easier to distinguish from the ambient noise.

The proposed Whistling Pines West building is approximately 750' from the nearest residence. The new Whistling Pines facility is further away and will not have doors directly into the range. If gunshot noise from the new range is audible at the nearest residences, it will be even less noticeable than at the existing ranges even though the ambient noise level is lower. The noise level will drop as you get further away and become inaudible.

Please feel free to call if you have any questions.

Sincerely,



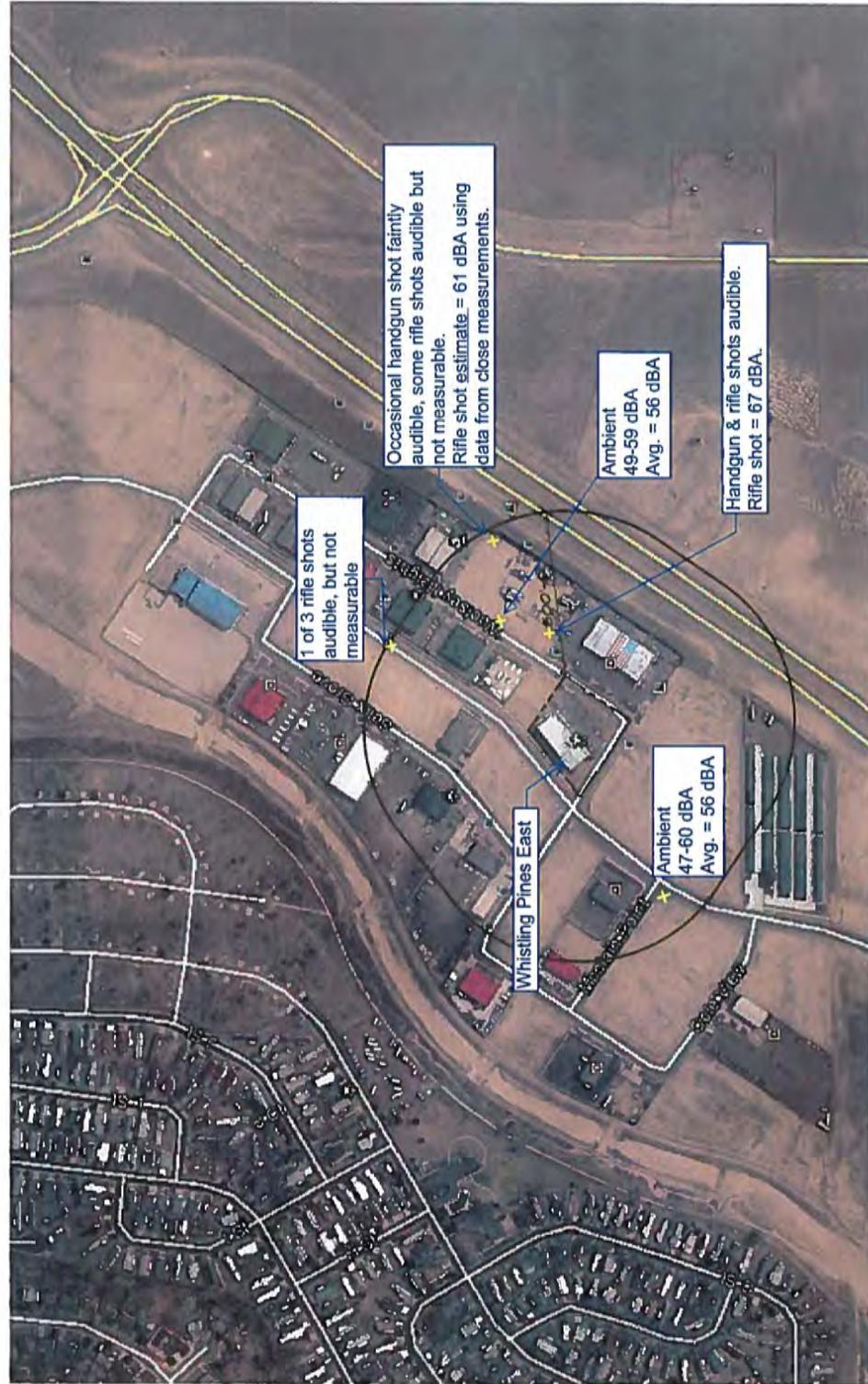
Digitally signed by Jeffrey Kwolkoski
DN: cn=Jeffrey Kwolkoski, o=Wave
Engineering, ou,
email=jkwolkoski@WaveEngineering.
co, c=US
Date: 2013.12.27 16:07:02 -07'00'

Jeff Kwolkoski, P.E., INCE Bd. Cert.
President

Encl: Exhibits (2)

Whistling Pines Gun Club West

Existing Whistling Pines Building Aerial



© Design Project 2013 - Whistling Pines 2013 Civil Submittal/Revision 177 - ambient.dwg, Existing property, 12/19/2013 11:24:47 AM, USA, USA

FIGURE 8

McCauley, Erin

From: Peterson, Carl [USA] <peterson_carl@bah.com>
Sent: Tuesday, December 31, 2013 12:26 PM
To: McCauley, Erin
Cc: Jeremy Hammers (jjhammers@hammersconstruction.com)
Subject: RE: [External] FW: Whistling Pines Gun Club Noise Study Questions

Erin,

Terrific, thank you. Please include my comments in the Planning Commission package. I'm looking forward to seeing the second noise study. We just need to make sure that the gun/cartridge combinations that will be used on the rifle and pistol ranges were used in the studies and that the gun club will meet the noise standards. I didn't see the 50 BMG or the 460 Weatherby used in the first study, nor were some large caliber handgun cartridges used. Only smaller cartridges were used. I appreciate everyone's cooperation and help on this.

Sincerely,

Carl

Carl Peterson

From: McCauley, Erin [mailto:EMcCauley@springsgov.com]
Sent: Tuesday, December 31, 2013 11:19 AM
To: Peterson, Carl [USA]
Cc: Jeremy Hammers (jjhammers@hammersconstruction.com)
Subject: RE: [External] FW: Whistling Pines Gun Club Noise Study Questions

Hi Carl,

Thanks for the comments. I've read through them and I've forwarded them onto Jeremy Hammers at Hammers Construction.

Bottom line, though, is that based on the study (and another study, which I'll forward to you and other neighbors), Hammers and the owner of Whistling Pines are confident that the noise attenuation features will get them their 45 db(A) measurement they've committed to. I've made that measurement a condition of approval and a condition of issuing the Certificate of Occupancy, which means that if they can't demonstrate the noise doesn't exceed the 45db(A) limit, they can't open.

Does that satisfy your lingering concerns about the noise?

Also, would you like me to include your comments in the Planning Commission package or does the condition above satisfy them?

Thanks!!

Erin McCauley AICP LEED AP BD+C

Planner II
Land Use Review Division
Planning & Development Team
30 S. Nevada Avenue, Suite 105
Colorado Springs, CO 80903
(719) 385-5369 - phone

(719) 385-5167 - fax
emccauley@springsgov.com



Please consider the environment before printing this email.

From: Peterson, Carl [USA] [mailto:peterson_carl@bah.com]
Sent: Monday, December 30, 2013 2:25 PM
To: McCauley, Erin
Subject: RE: [External] FW: Whistling Pines Gun Club Noise Study Questions

Erin,

Thank you. The e-mail trail below answers my questions. The noise study is invalid, as follows:

1. Per Jeff Kwolkoski's remarks below, the noise study did not model some bigger calibers that can be used on the rifle range, such as the 300 Win Mag, 375 H&H, 416 Rigby, 460 Weatherby, and 50 BMG. The biggest cartridge that Jeff mentioned below is the 308/7.62. Those two cartridges are virtually identical (the 308 caliber is the civilian version of the military 7.62 mm). A typical 308/7.62 will have 45 to 50 grains of powder it. Whereas a 300 Win Mag can have 70 grains of powder, a 375 H&H can come close to 80 grains, the 416 Rigby in the 90 to 100 grain range, and as I mentioned previously, the 460 Weatherby can have 124 grains and the 50 BMG can have up to 238 grains. More powder, more noise.
2. Jeff Kwolkoski also wrote below: "We use a database of sound data for over 100 combinations of weapons and ammunition. However, there are many weapons and cartridges for which good sound data is not available. It is true that the sound level of each weapon and cartridge will vary somewhat. We cannot model every weapon and cartridge that will be used in the ranges, but we believe that the sound levels of these weapons are representative of the vast majority of weapons that will be fired on the ranges." In other words, there are plenty of bigger cartridges that can be allowed on the both the rifle and the pistol range that are not modelled.
3. The 44 Magnum was not used in modelling on the pistol range. A typical full power 44 Magnum load can have 22 or 23 grains of powder in it. The 9mm rounds modelled won't have more than 8 or 9 grains, and I don't think a 357 Magnum (which Jeff says was modelled) will have more than 15 grains of powder. There are Smith & Wesson revolvers available in the 45 and 50 caliber range that can hold over 30 grains of powder. More powder, more noise.
4. Down below in the e-mail, Jeremy Hammers writes the following: "If your going to eliminate the 50 cal. That would help our case so let me know." That comment tells me that the WPGC folks have some concerns themselves about the adequacy of the noise insulation.
5. I'm not sure what Jeff means by stating that "Muzzle breaks were not specifically studied. Muzzle breaks redirect a portion of the sound to the side. They can significantly increase the sound level at the shooter's ear but they do not significantly increase the overall sound energy produced by the gun." We need to know what a not significant increase in overall sound energy is. Is that one dB, five or ten, or more?

I am not against this gun club. I am concerned about having adequate noise insulation. Perhaps a better study needs to be performed that will accurately capture the noise generated by the firearms and cartridges to be permitted so that the range can be adequately insulated against noise. Having a gun club so quiet that no one knows it is there is the best advertisement WPGC could have. Again, I'm sure that the gun club wants to be a good neighbor.

Going down the e-mail trail it looks like Jeremy Hammers had his 300 Win Mag out with the muzzle brake on it doing some sound testing. Maybe the WPGC folks could get the boys with the 460 Weatherbys, the 50 BMGs, the 460 and 500 S&W revolvers and get some good data on those particular firearms and model the actual guns that will be used on both

the rifle and the pistol range. We might have some more accurate data that way. Just a thought. I don't know if that is viable or not. I'm not sure what the solutions are, nor do I know what data or information the Planning Commission would find acceptable.

One last question. What were the results of the testing with Jeremy's 300 Win Mag with the muzzle brake? Did that meet the Planning Commissions standards?

Sincerely,

Carl

Carl Peterson

From: McCauley, Erin [<mailto:EMcCauley@springsgov.com>]
Sent: Monday, December 30, 2013 12:30 PM
To: Peterson, Carl [USA]
Subject: [External] FW: Whistling Pines Gun Club Noise Study Questions

Hi Carl,

I just got the following response from Jeremy Hammers and his sound Engineer. Let me know if this answers your questions.

Thanks,

Erin McCauley AICP LEED AP BD+C

Planner II
Land Use Review Division
Planning & Development Team
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Colorado Springs, CO 80903
(719) 385-5369 - phone
(719) 385-5167 - fax
emccauley@springsgov.com



Please consider the environment before printing this email.

From: Jeremy Hammers [<mailto:jjhammers@hammersconstruction.com>]
Sent: Monday, December 30, 2013 12:28 PM
To: McCauley, Erin
Subject: FW: Whistling Pines Gun Club Noise Study Questions

See below...

Jeremy Hammers
Senior Project Manager
Hammers Construction, Inc.
1411 Woolsey Heights
Colorado Springs, Co. 80915
direct: 719-955-4614
office: 719-570-1599

cell: 719-499-4133
fax: 719-570-7008
North Dakota 701-842-6999
jjhammers@hammersconstruction.com
www.hammersconstruction.com

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From: Jeff Kwolkoski [<mailto:jkwolkoski@waveengineering.co>]
Sent: Friday, December 27, 2013 9:20 AM
To: Jeremy Hammers
Subject: Re: Whistling Pines Gun Club Noise Study Questions

Jeremy,

I have attempted to address the issues raised by Mr. Petersen. Let me know if you have any comments.

What were the calibers and cartridges modeled in the study?

We use a database of sound data for over 100 combinations of weapons and ammunition. However, there are many weapons and cartridges for which good sound data is not available. It is true that the sound level of each weapon and cartridge will vary somewhat. We cannot model every weapon and cartridge that will be used in the ranges, but we believe that the sound levels of these weapons are representative of the vast majority of weapons that will be fired on the ranges.

The representative weapons are:

Rifle M/87 308 cal (.308 Winchester Match 12.3gr)
Rifle M/75 G3 (7.62mm x 51mm Sharp APE)
Beretta 9mm M92F Compact (Norma 9mm Luger safety)
Smith & Wesson .357 magnum (cal.357 Magnum 10.2 gr soft point flat nose)
SigSauer 228 Police 9mm (Action 3, 9mm x 19 Sintox)
Glock 17/9mm (9mm sharp M/41)

Please note that most of these weapon and ammunition designations are European and "gr" means grams, not grains.

As I mentioned before, we do not have sound data for a .50 caliber rifle and Mr. Holmes indicated that he is willing to have the higher caliber weapons measured if necessary.

Were the effects of muzzle brakes also included in the study?

Muzzle breaks were not specifically studied. Muzzle breaks redirect a portion of the sound to the side. They can significantly increase the sound level at the shooter's ear but they do not significantly increase the overall sound energy produced by the gun. As I discussed in the public meeting, the direction of the sound inside the range is not an issue since sound will reflect and reverberate inside the range before it gets to the roof, which is our main concern. In other words, the sound transmitting through the roof will be the same no matter which way the gun is pointed inside the range, and whether or not a muzzle brake is used.

I hope this addresses Mr. Peterson's concerns. Please let me know if you need anything else.

Regards,

Jeff Kwolkoski, P.E., INCE Bd. Cert.
President



WaveEngineering

P.O. Box 1153, Littleton, CO 80160
720-446-WAVE (9283)
www.WaveEngineering.co

On Mon, Dec 23, 2013 at 12:31 PM, Jeremy Hammers <jjhammers@hammersconstruction.com> wrote:
See below. Some thinking for over the Holiday. Our sound tests sound sufficiently help this out.

I have a muzzle break on my 300 Win Mag that I was shooting during our latest sound testing.

If your going to eliminate the 50 cal. That would help our case so let me know.

By the way is everything ok in the 25 yard range?

Sent from my iPhone

Begin forwarded message:

From: "McCauley, Erin" <EMcCauley@springsgov.com>
Date: December 23, 2013 at 11:52:29 AM MST
To: "Jeremy Hammers (jjhammers@hammersconstruction.com)" <jjhammers@hammersconstruction.com>, "Steve Hammers (SHammers@hammersconstruction.com)" <SHammers@hammersconstruction.com>
Subject: FW: Whistling Pines Gun Club Noise Study Questions

Hi Jeremy & Steve,

I was printing out all of the comments and came across this one that I should have forwarded earlier – do you have answers to these questions or could you get them? I remember your noise consultant mentioning the calibers, but I didn't write them down...

Erin McCauley AICP LEED AP BD+C

Planner II

Land Use Review Division

Planning & Development Team

30 S. Nevada Avenue, Suite 105

Colorado Springs, CO 80903

(719) 385-5369 - phone

(719) 385-5167 - fax

emccauley@springsgov.com

Please consider the environment before printing this email.

From: Peterson, Carl [USA] [mailto:peterson_carl@bah.com]
Sent: Thursday, December 12, 2013 7:24 PM
To: McCauley, Erin
Subject: Whistling Pines Gun Club Noise Study Questions

Erin,

I have some concerns about the validity of the noise study that was accomplished to support the building of the Whistling Pines Gun Club. We need to know the following in order to determine if the study is accurate:

1. What were the calibers and cartridges modelled in the study?
2. Were the effects of muzzle brakes also included in the study?

Gunpowder burned relates to noise produced. More gunpowder burned, more noise. Regarding rifle rounds, a typical .30-06 will have a little under 60 grains of gunpowder in it, whereas a .460 Weatherby Magnum can have up to 124 grains of powder in it. A 50 caliber Browning machine gun (BMG) round can have up to 238 grains.

Finally, big guns generate a lot of energy at both ends. In order to ameliorate the effects of recoil, many big guns will have a muzzle brake at the muzzle that deflects gas from the gunpowder to the side, with the result that felt recoil is reduced. Another effect of a muzzle brake is increased muzzle blast, hence noise. Does the noise study include the effects of muzzle brakes in the calculations? We need to know what kind of cartridges were used in the noise

study calculations and whether or not muzzle brakes were employed. See the attachment for a picture of a .50 caliber muzzle brake.

The best advertisement for the Whispering Pines Gun Club would be that no one knows that it is there because it is so quiet. I'm sure that the gun club wants to be a good neighbor. We want them to be a good neighbor as well. But we need accurate data to answer these questions.

Sincerely,

Carl

Carl H. Peterson

DESIGN CRITERIA

- FIXED POSITION FRINGING RANGE:
 TRAJECTORY'S START AT 1' ABOVE FINISHED FLOOR, AT FRINGING LINE
 BARFLY LAYOUT PROVIDES STEEL COVERAGE OF TRAJECTORY - 2' ON BARFLY/TRAP
 COVERAGE EXTENDS 30" BEHIND FRINGING LINE, PROVIDING A 80" CONTAINMENT AREA AT FRINGING LINE.
 BARFLY ANGLE DESIGNED TO NOT EXCEED 30".
 TRAJECTORY HEIGHT DESIGNED TO PLACE THE TOP OF HEAD AT 5'-10" AFF.

GENERAL ELECTRICAL NEEDS:

- GENERAL ELECTRICAL REQUIREMENTS FOR RANGES AND MAJOR EQUIPMENT:
 IF:
 THE FOLLOWING CONDITIONS ARE PRESENT IN ATTACHED RANGE DESIGN:
 - TARGETRY IS PRESENT.
 - TARGETRY CONTROL EQUIPMENT IS PRESENT.
 - TARGETRY CONTROL SYSTEMS ARE PRESENT.
 - COMMUNICATION SYSTEMS ARE PRESENT.
 - A DUST COLLECTION UNIT IS PRESENT.
 - AN AIR COMPRESSOR IS PRESENT.
- 2. RANGE WILL HAVE MAX. TR. E.3 PHASE 208/240VAC DISCONNECTS PROVIDED BY OTHERS IF ANY
 OF THE FOLLOWING CONDITIONS ARE PRESENT IN ATTACHED RANGE DESIGN.
 IF:
 - A SCREW CONVEYOR SYSTEM IS PRESENT. (TYPICALLY UTILIZES 2 OR MORE 3P 3 PHASE MOTORS)
 - A DUST COLLECTION UNIT IS PRESENT.

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DATE	REVISION	BY	NO.
9/9/13		KEVIN HILL	1
		CG	2
		JAMES SOMME	3
		LANE ASHBY	4

NOTES / KEY:

Whistling Pines North

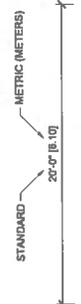
GENERAL NOTES

Drawings Title:

Drawing Number: **2002**

DIMENSION CLARIFICATION

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SYMBOLS & CALLOUTS

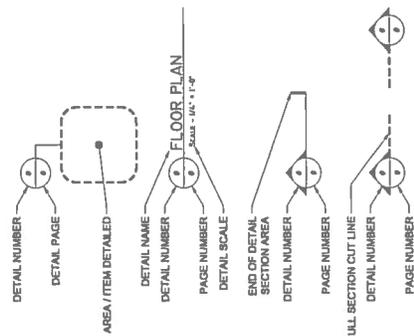


FIGURE 10

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6	BY				
7	DATE				
8	BY				
9	DATE				
10	BY				

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 PROJECT NAME: _____
 PROJECT LOCATION: _____
 PROJECT OWNER: _____
 PROJECT DATE: _____
 PROJECT SCALE: _____
 PROJECT STATUS: _____
 PROJECT DRAWN BY: _____
 PROJECT CHECKED BY: _____
 PROJECT APPROVED BY: _____
 PROJECT DATE: _____

Drawing Title:
RANGE SITE PLAN

Drawing Number:
Z101

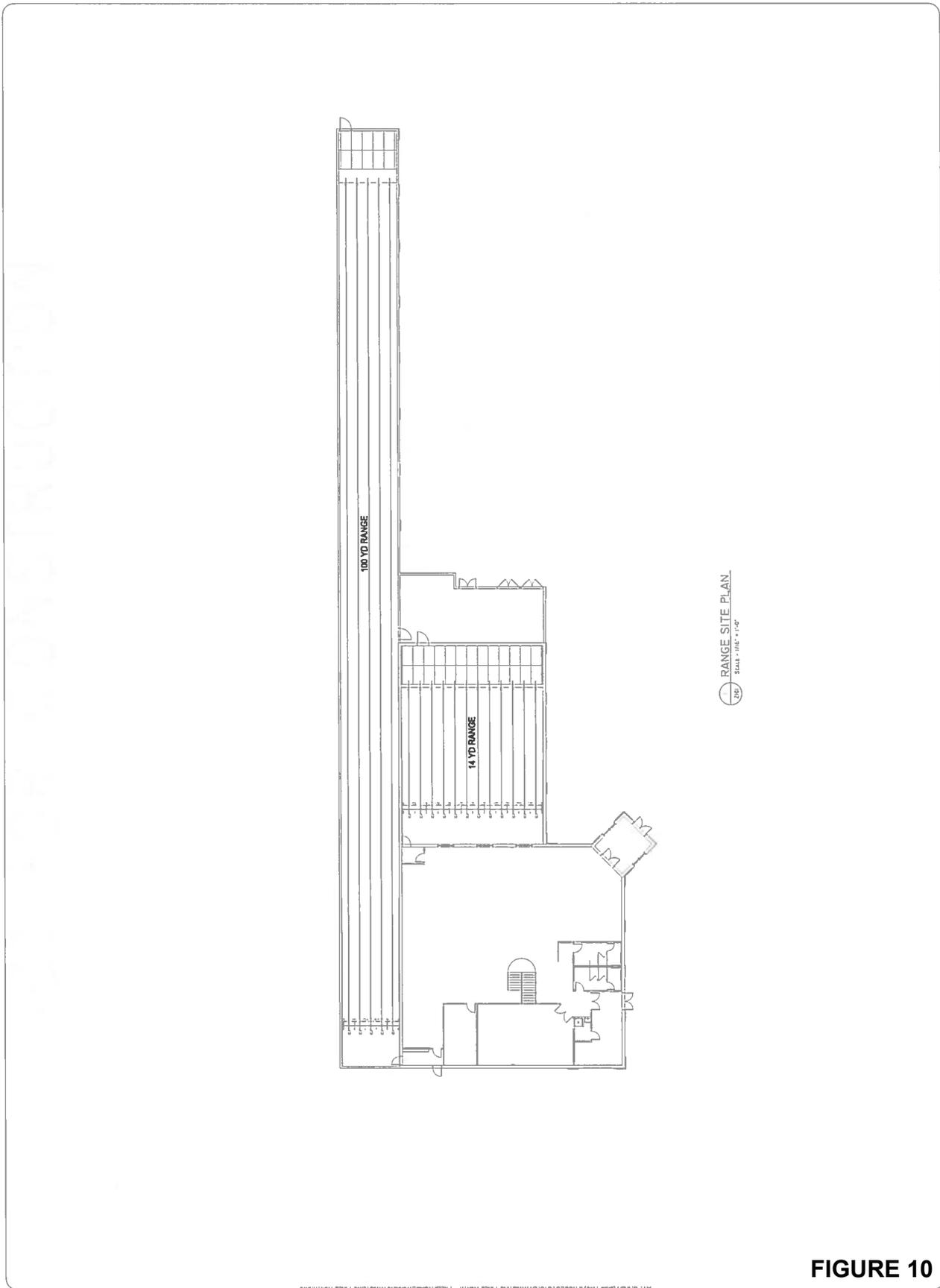


FIGURE 10

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6	DATE	NO	BY
7	DATE	NO	BY
8	DATE	NO	BY
9	DATE	NO	BY
10	DATE	NO	BY

WHISTLING PINES NORTH

DATE: _____ REVISION: _____
 NO: _____ BY: _____

DRAWING TITLE:
**BAFFLE
 DETAILS**

SCALE PER SECTION, UNLESS NOTED OTHERWISE

DRAWING NUMBER:
Z511.1

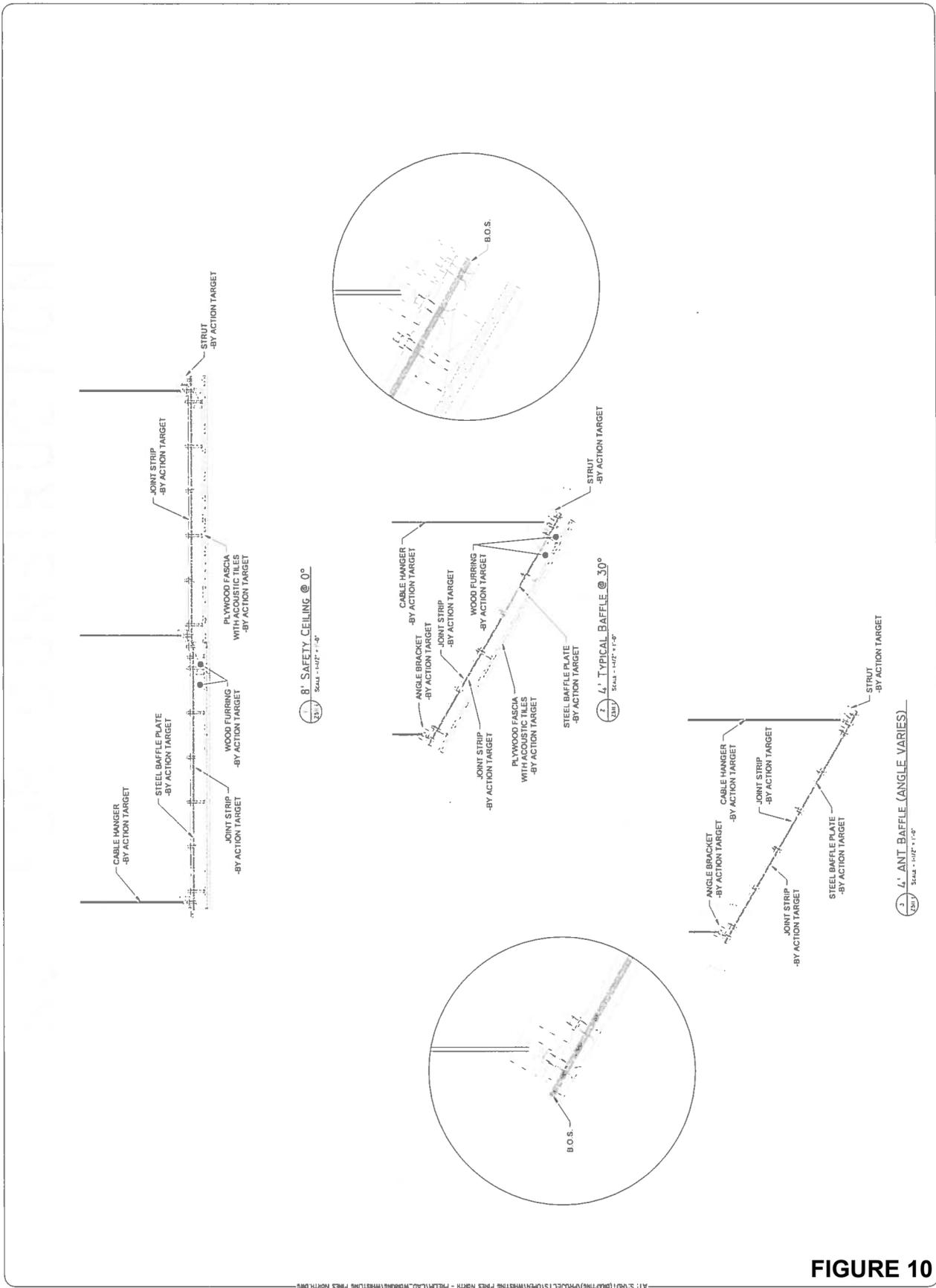


FIGURE 10

AT: S:\DOT\GALFING\PROJECTS\SHOW\WHISTLING PINES NORTH - PRELIM\CD\WORKSET\WHISTLING PINES NORTH.DWG

