

DENVER CRIME LABORATORY

OPENING – JUNE 5, 2012



INTRODUCTION

The voter-approved Better Denver Bond Program budgeted \$36 million for the new Denver Crime Laboratory that opened in June 2012 at 1371 Cherokee Street. The facility's new capabilities will help the City of Denver to investigate, identify or exonerate suspects and successfully prosecute criminal cases. The 60,000 square foot laboratory is significantly larger than the lab's former 14,000 square foot space located on the 6th floor of the Denver Police Administration Building (PAB). A secure underground tunnel connects the new laboratory to the Property Management Bureau which stores evidence within the PAB. The larger size and improved forensic laboratory space permits better staff interaction, education and citizen involvement in scientific technology. The laboratory design will enable a research and development program as well as expanded evidence handling and processing. The building's modularly designed interior provides the long-term benefit of flexibility and adaptability as new technologies evolve. Prior to the new facility, forensic vehicle examination occurred off-site, mainly in the District stations. The new building accommodates on-site vehicle examinations and direct delivery of evidence to the laboratory. All nine forensic units which were previously dispersed throughout the City and County of Denver are now housed together enhancing the communication, coordination, and efficiency of forensic work in Denver.

The crime laboratory currently employs 50 people to complete forensic analysis on cases and other duties. With the expanded space additional staff could be hired to provide investigative support to Denver Police, Denver Fire, Denver Sheriff, Denver Medical Examiner, Denver City Attorney, Denver Public Defender, and Denver District Attorneys Offices.

Part of the building's architecture was created to mimic the structure of a DNA molecule and the materials selected for the building address security concerns and longevity while complementing the surrounding architecture of Civic Center, the Justice Center, and residential neighbors. With its setback, plaza and interesting façade, the building is a visually appealing addition to the area. Under Greenprint Denver, the laboratory is designed and constructed using sustainable approaches and will meet or exceed LEED Silver Certification through the US Green Building Council. LEED, Leadership in Energy and Environmental Design, addresses energy savings, water efficiency, CO2 emissions, improved indoor air quality, and stewardship of natural resources.

Crime Laboratory Construction and Operation LEED Facts

- 75% of construction waste was diverted from landfills.
- Low-flow fixtures have reduced expected water usage by 50%.
- 28% energy reduction was achieved from standard construction projects.
- 20% of the materials were produced from recycled content.
- 100% of storm water collected on site will be treated prior to entry into the City storm water system



PAST AND PRESENT

A HISTORY OF THE DENVER POLICE DEPARTMENT -CRIME LABORATORY

- The Denver Police Department Crime Laboratory started in 1947, pioneered by Captain Joe Moomaw who used his own funds to purchase a comparison microscope for the examination of bullets and shell casings often found in gun related crimes. This work started the crime laboratory in a single room at the old Denver Police Headquarters Building (1313 Champa Street).
- The use of science continued into the 1950's with the crime laboratory under the Denver Police Department Bureau of Identification. Laboratory field units were deployed for the examination and processing of crime scenes using black and white photography until 1971.
- During the mid 1950's new technology (breathalyzer) was used to measure blood alcohol. Science was becoming useful in criminal investigations and was also challenged in court.
- As science became more important in criminal investigations, police recruit classes were instructed in fingerprinting, firearms, crime scene preservation, and blood alcohol determinations. Science was now becoming a routine part of recruit training that continues to this day.
- During the 1960's the fight against illicit drugs became an important aspect of policing. Denver Crime Laboratory detectives and scientists routinely analyzed marijuana by microscope and color testing in the same small lab where firearms analysis and fingerprinting occurred.
- The laboratory soon expanded and was split into two sections: Criminalistics (fingerprinting, firearms, and photography) and Forensic Science (chemistry and serology). The Criminalistics Section remained at Denver Police Department HQ and the new Forensic Sciences Section was located in the basement at Denver General Hospital on Bannock Street. This was the first expansion of the crime laboratory reflecting the role of scientific investigations in Denver.
- By January 1971, the crime laboratory began a relationship with 35mm color film which lasted until 2004. Automated color development and processing was also introduced to the newly organized Forensic Photography Unit.
- In 1978, under the leadership of Captain Robert Nicholetti, both the Criminalistics and Forensic Science Sections were moved to the 6th floor of the new Police Administration Building, providing approximately 14,000 sq ft of operational space. The site served as the home to the Police Crime Laboratory Bureau until the opening of the new Crime Laboratory in 2012.
- During the late 1970s and early 1980s, rapid expansions of forensic chemistry occurred under the leadership of Captain Nicholetti, including the addition of advanced instrumentation for the forensic analysis of drugs and arson residue.
- In 1985, the Metropolitan State College Chemistry Department and the Forensic Science Section of the Denver Crime Laboratory Bureau entered into a partnership that continues today. A Forensic Science Internship Program was developed for promising college students which involves two semesters of hands-on work and exposure to the field of forensic science. Over 200 college interns have participated in this program. The Denver Crime Laboratory hired nine of these interns, and placed countless others with other forensic institutions across the country.



Captain Joe Moomaw



DPD Lab ID Unit\1950s



DPD Lab Field Unit



*Detective
Charles Hoagland*

PAST AND PRESENT (CONTINUED)

- By the late 1980's, the crime laboratory separated inorganic chemistry (Trace Evidence) procedures from the organic chemistry (Drugs and Arson Debris) procedures. Today, the Trace Evidence Unit is a three-man unit that conducts forensic analysis on Hairs, Fibers, Gunshot Primer Residue, Explosive Debris, Soils, Paints, Glass Samples and Fracture Matches.
- In 1993, DQ-alpha Polymarker for DNA was initiated, and profiles were searched and compared with local and state databases. In 2003, Denver expanded its searching capabilities to the national level, utilizing the FBI's CODIS database. Since its implementation, the laboratory has received over 3500 "hits" or investigative leads.
- By 1994, the Latent Print Unit introduced the Automated Finger Print Identification System (AFIS) to the database arsenals of the Crime Laboratory Bureau. In 2007 and 2008, the unit furthered their capabilities by adding a local palm and fingerprint database shared by the Denver Sheriff's Department (AFIX), and became connected to the federal database (IAFIS). The unit receives over 400 hits annually between the three databases.



- In May of 2002, the Denver Police Crime Laboratory's third forensic database, known as the NIBIN system (National Integrated Ballistic Information Network) was introduced by the Lab's Firearms Unit through the Bureau of Alcohol Tobacco and Firearms, which operates NIBN. The system has enabled the Firearms Examination Unit to enter known bullets from firearms as well as cartridge case evidence into the IBIS (Integrated Ballistic Identification System) database. By the end of 2011, the Crime Laboratory Bureau had recorded 829 hits from the IBIS system.
- The Denver Police Crime Laboratory's Forensic Photographic Unit began to enter the "Digital Age" in 2002. The newly acquired Noritsu Digital Printer was used to introduce digital photography to crime scene processing. By 2004, both still photographs and video photography had been digitally formatted for all forms of forensic evidence. With the introduction of the VeriPic System, the Crime Laboratory was also able to store and catalogue photographs digitally.
- Today the new Crime Laboratory stands as a model of modern forensic practice and equipment, with an efficient layout, and an environmentally sustainable and appealing design.



PAST AND PRESENT (CONTINUED)



DENVER CRIME LABORATORY PROJECT TEAM:

The following organizations and people, along with many more across the City & County of Denver, contributed to the planning, design and construction of the new Crime Laboratory:

Denver Police Department: Chief Robert White and former Chief Gerald Whitman, Division Chief David Fisher, Director Gregory LaBerge, and Deputy Director Mark Olin

Denver Public Works Department: Kent Grissom, Project Manager; Lesley Thomas, City Engineer; George Delaney, Bond Implementation Manager

Denver District Attorney: Mitchell R. Morrissey

Architect(s): Durrant - Bill Baker, Steve Mulkey, and Dan Olson; Smith Group - Mark Kranz, Brad Woodman, Adam Denmark, and Mike Mount

Contractor: JE DUNN - Brian Holthaus, Joel Pennick, and Scott Pashman





Forensic Imaging Unit



Above is a pellet gun which was used in a crime. A scale is used in the photograph so that all parts of the gun's size can be determined.

Below, a fireman cuts out part of a bathroom wall before it is brought to the lab for analysis. Bloody fingerprints were found on the wall, and they were photographed before cutting the wall, in case it was damaged during the cut.



Two Police Photographic Specialists handle the digital archiving of digital evidence images from the Crime Scene Unit, Traffic Investigations Bureau, and Crime Laboratory. The unit handles requests for Specialized Photography and Forensic Video (Surveillance) Acquisitions and Comparison Analysis.

Requests for Public Relations, Awards, and Special Events are covered by the unit during the year.



Right, a photograph of a bath tub that had been removed from a home involved in an arson and homicide case. Close-up photos of tool marks and scratches to the tub were documented to assist with the determination of the type of chainsaw or weapons used.



Person photographed with visible light.



Person photographed with infra-red light.

Between 2009 and 2011, the unit authenticated and archived over 250,000 digital evidence images from crime scenes, morgue examinations, victim injuries, and suspects. Requests for photo CDs are created from the digital archive for investigators and the Denver District Attorneys' staff.

Surveillance video of crime scenes plays an important part of criminal investigations. The unit handles over an average of 370 forensic video downloads and still image capture requests of suspects and vehicles a year for investigators.

In an average year, the two man unit will handle over 2,500 digital imagery and video cases, while covering over 100 events.



DNA: *Denver's* most powerful law enforcement tool of the modern era



EXONERATIONS

On 6/4/10, a Denver couple, victims of a home invasion armed robbery, had \$30,000 stolen from them. On 6/6/10 an officer spotted James Barrios walking in the area and noted that he matched the physical description of one of the suspects. Barrios had a history of criminal activity matching the MO in this case. Due to his distinctive neck tattoos he was identified by one of the victims in a photo array.

Barrios was arrested and awaiting trial when the crime lab was able to identify suspect DNA on the zip ties used to restrain the victims during the robbery. When Barrios' profile **did not match the DNA from the zip ties**, he was proven innocent and released from jail.

But the story doesn't end there. The crime lab submitted the unknown DNA profile from the zip ties to CODIS and got a hit! This evidence led detectives to Frank Chavez, who also has distinctive neck tattoos. Chavez was arrested and pled guilty to robbery charges.



Frank Chavez
Identified by DNA



James Barrios
Cleared by DNA

FACTS ABOUT THE FORENSIC BIOLOGY/DNA UNIT

- The unit consists of 1 Technical Lead, 9 DNA Forensic Scientists, and 2 Laboratory Technicians
- Forensic Biology/DNA examines evidentiary items for the presence of blood, saliva, cellular material, or other biological fluids to obtain DNA profiles
- Since 2008, the unit completed testing on over 2,800 cases (or over 14,000 DNA samples) and received 1,330 CODIS matches

INVESTIGATIVE LEADS

Over a 4 day period in February 2005, five women and children were brutally attacked and sexually assaulted. The DPD suspected the same man was responsible but the cases had no solid leads. On day 5 the crime lab identified semen on swabs from the five victims. Analysts worked around the clock with the entire unit focused on obtaining DNA results.

26 hours later testing was completed. The semen from all five victims matched the same male. This DNA profile was entered into the CODIS database and matched to Brent J. Brents, an offender with prior convictions for sexual assault. **The DNA match transformed the investigation from including hundreds of potential suspects to an effort focused on locating one known perpetrator:**

After two days of searching for Brents, there was another brutal attack. After leaving the woman for dead, he stole her car with her cell phone in the glove compartment. Using cell phone tower triangulation technology, police located the suspect traveling west on Interstate 70. Just one week after the first attack



Brent J. Brents was arrested in Glenwood Springs, Colorado. Brents confessed to sexually assaulting nine women and children in a period of less than five months. In July 2005, he pled guilty to 68 charges in Denver District Court and was sentenced to 1,319 years in prison, the longest sentence ever imposed in Denver.

PROPERTY CRIMES

- *In 2006, Denver was one of the first cities to expand the use of DNA from violent crimes to also solve property crimes.*
- *Over 975 property crimes have been tested for DNA*
- *547 CODIS matches – a 57% hit rate*
- *378 cases have been accepted for prosecution*

In 2004 and 2005 there was a dramatic increase in burglaries in the West Washington Park area. In one burglary, a cigarette butt was recovered from the kitchen floor of the victims' home yet the victims did not smoke. The Denver Police Crime Lab obtained a male and female mixture of DNA on the cigarette butt.



On March 24, 2005 a prowler was reported in the 2100 Block S. Grant where David Weller was identified. The DNA mixture on the cigarette butt matched to David and Dina Weller, a husband and wife team. In an interview, Dina admitted to committing over 100 burglaries in the West Washington Park area. At trial while under oath on the witness stand, David admitted to committing over 1000 burglaries in his lifetime.

Once this husband and wife team were taken off the street, the burglary rate in the West Washington Park area decreased by 40%.

COLD CASES

- *Since 2004, over 5,200 cold case homicide and sex assault cases have been reviewed by detectives. About 1000 have been reopened for DNA testing. 412 DNA profiles were successfully developed and uploaded to CODIS. 198 DNA profiles (48%) have resulted in a CODIS hit, prompting charges to be filed in 87 cases.*



In 1980, 22-year old Kristen Swanson was sexually assaulted and stabbed to death. 30 years later, Denver's DNA cold case project identified Roderick Elias as a suspect through a DNA match. A Denver jury found him guilty of 1st degree murder in June 2011. He received a life sentence without the possibility of parole.



Forensic Chemistry Unit



Infrared Spectrophotometer

Forensic Chemistry Unit Staff

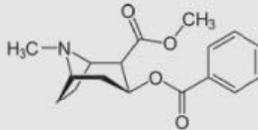
- Mr. Don Shriver, Forensic Scientist Supervisor
- Mr. Charles Butler, Forensic Scientist II, Chemist
- Mr. Steve Sasseti, Forensic Scientist II, Chemist
- Mr. Jason Lehn, Forensic Scientist II, Chemist

Forensic Chemistry Unit Caseload 2008 – 2011

| | |
|----------------|-------|
| Narcotic Cases | 14843 |
| Exhibits | 16174 |
| Blood Alcohol | 3650 |
| Fire Debris | 67 |

Forensic Chemical Analyzes

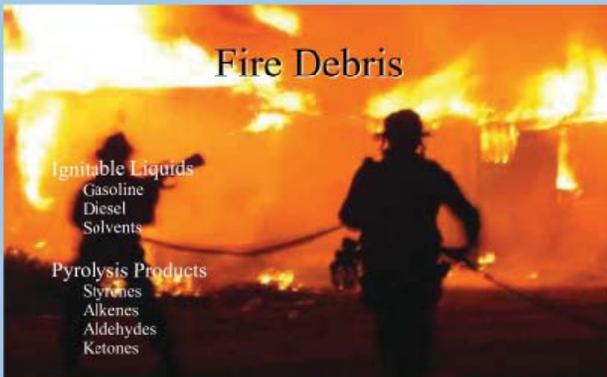
- Controlled and Suspected Controlled Substance
 - Narcotics
 - Designer
 - Stimulants
 - Spice
 - Bath Salts
- Fire Debris
- Ethanol Determination



Gas Chromatograph Mass Spectrometer

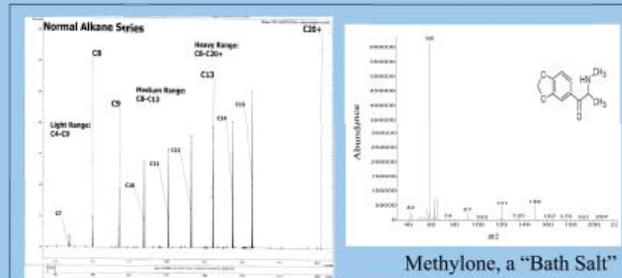


Headspace Gas Chromatograph

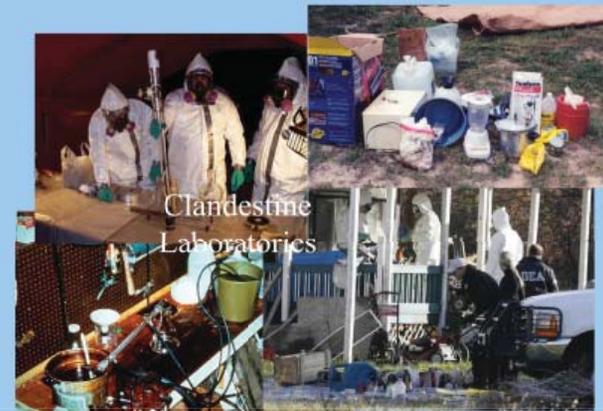


Fire Debris

- Ignitable Liquids
 - Gasoline
 - Diesel
 - Solvents
- Pyrolysis Products
 - Styrenes
 - Alkenes
 - Aldehydes
 - Ketones



Methylone, a "Bath Salt"



Clandestine Laboratories



Latent Print Unit



- Analyzes, compares, evaluates fingerprints taken at crime scenes by the Crime Scene Unit
- Enters fingerprints and palmprints in local, state, and national fingerprint databases
- Processes evidence including firearms, drug packaging, robbery notes, and burglary tools for fingerprint evidence
- Fingerprint powders, chemicals, super glue vapor, alternate light sources used for processing
- Analyzes shoe and tire impression evidence
- Prepares findings for court presentation



- Four latent print examiners including one supervisor with **58** years of total experience
- Two civilian employees, two police detectives
- Two certified latent print examiners by the International Association for Identification
- Two shoe/tire impression evidence examiners



- Chinese used fingerprints to sign legal documents as far back as three thousand years ago
- In 1880, Scottish physician, **Henry Fauld** wrote that skin ridge patterns could be important in identification work

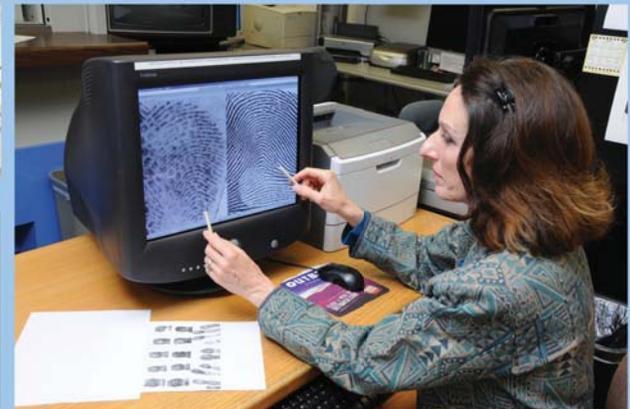
IN THE UNITED STATES

- 1901** – First systematic use of fingerprints adopted by the New York Civil Service Commission
- 1904** – American police received training in fingerprint techniques from Scotland Yards representatives
- 1924** – Fingerprint records from the Bureau of Investigation and Leavenworth merged to form records for the new FBI
- 1950's** – The Denver Police Department Crime Laboratory expands to include Latent Print Analysis



Since 2008, the Latent Print Unit has

- Completed 5745 cases
- Entered 6,100 prints into the local, state and federal databases
- Made 1077 identifications from database entries
- Excluded 56,000 candidates
- Identified 1,200 suspect prints
- Identified 2,100 total prints (suspect, victim, or other)



About our databases:

- Federal database has over 70 million print cards (IAFIS)
- State database has over 2.5 million print cards (AFIS)
- Local database has over 216,000 print cards. (AFIX)



Trace Evidence Unit



Complex Automobile Paint 200x

Range of materials

- Hairs , Fibers, & Feathers
 - Paint & Glass
- Construction Materials
- Vegetation, Wood, & Pollen
- Gun Shot Residue, & Explosives
 - Tape, Cords, & Rope



Architectural Paint

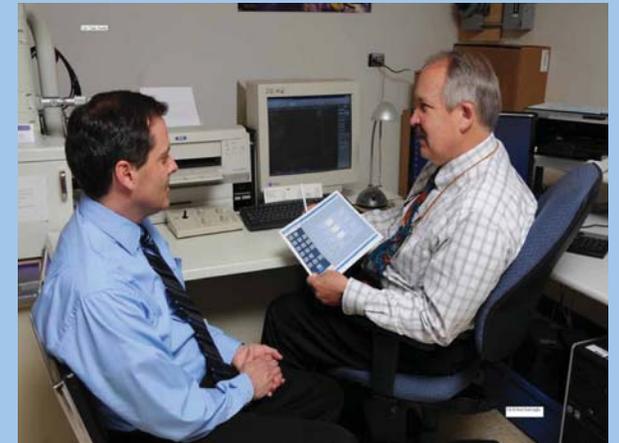
“For the microscopic debris that cover our clothes and bodies are the mute witnesses, sure and faithful, of all our movements and of all our encounters.”

--- Professor Edmond Locard (1930)

Dr. **Edmond Locard** (13 December 1877 – 4 May 1966) was a pioneer in forensic science who became known as the Sherlock Holmes of France. His most famous work, still referenced daily, is the seven volumes of the *Traité de criminastique* (Treaty of Criminalistics), published between 1931 and 1935. He formulated the basic principle of forensic science: **"Every contact leaves a trace"**. This became known as Locard's Exchange Principle. Locard stated that any action of an individual, and obviously the violent action constituting a crime, cannot occur without leaving a trace. From this sentence, the whole principle of exchange of traces between two objects entering in contact was established. For example, when a car hits another car, paint from the first car will be deposited on the second one and vice-versa. Similarly, when somebody sits on a chair, **fibers** from his/her clothing will be deposited on the chair and fibers from the cloth of the chair will be deposited on the person's clothing.



Cases Completed
 1/1/2008 to 12/31/2011
 Trace Evidence 431 cases
 Gunshot Primer Residue 233 cases



Trace Evidence Unit Staff
 Mr Mool Verma Forensic Scientist/ Anthropologist
 Mr Clark Smith Forensic Scientist/ Chemist
 Mr Robert Burroughs Forensic Science Supervisor



Firearms Unit



Examinations Performed By The Firearms Section

- Mechanical Function Testing of Firearms
- Determining The Caliber of Fired Bullets
- Determining if a Bullet or Cartridge Case Was Fired by a Specific Firearm
- Gunpowder Pattern and Proximity Testing
- Distance Determinations
- Serial Number Restoration
- Toolmark Examination and Identification
- Physical Matches



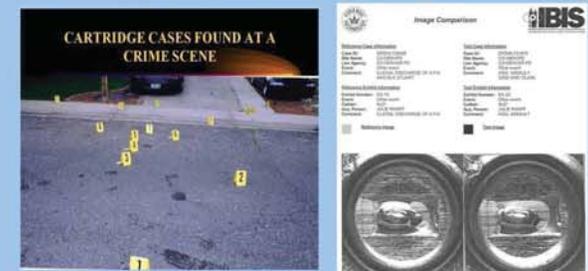
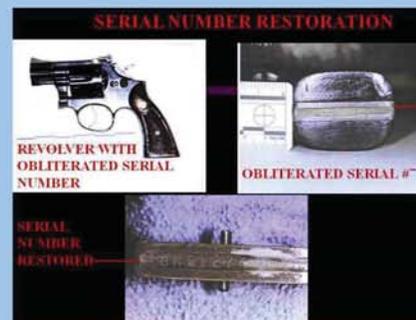
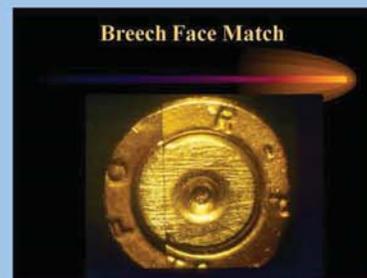
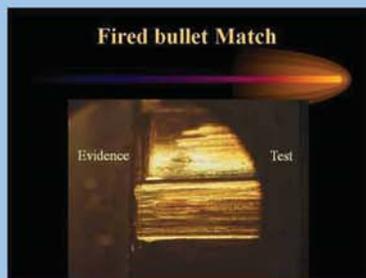
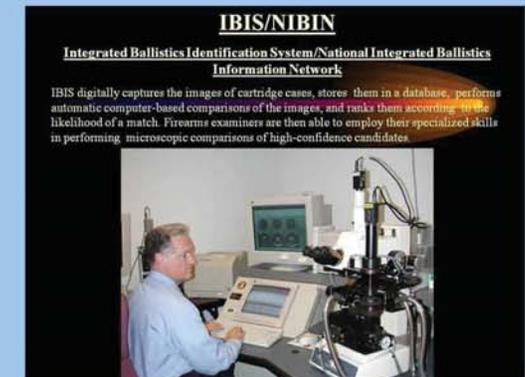
Firearm Unit Statistics for the period of 2008 through 2011

- 893 Cases completed
- 369 Firearms Examined
- 2,429 Cartridge Case Comparisons
- 615 Bullet comparisons
- 2,863 Photographs Taken

IBIS/NIBIN Database Statistics

- 1,865 Firearms Examined/Test Fired
- 1,298 Test Fired Cartridge Cases Entered
- 4,258 Evidence Fired Cartridge Cases Examined
- 801 Evidence Fired Cartridge Cases Entered
- 347 Confirmed Hits

The current staffing in the Firearm & Toolmark Unit consists of one Forensic Scientist Supervisor and two Forensic Scientists. All are qualified firearm and toolmark examiners.





Firearms Unit Test Fire Range



The Test Fire Range is divided into three areas: test fire ammunition storage, a seventy-five foot test fire range with an electronic target retriever, and specially designed water tank for test fire bullet and cartridge case recovery.

The water tank is designed to withstand the test firing of all types of firearms up to and including the 50 caliber BMG rifle. When closed pneumatically, the system places over seven hundred pounds of pressure on the lid, preventing it from opening during test firing. Firearms can be test fired into the tank by hand or remotely, as demonstrated in the photographs to the right. The blue netting cover captures the fired cartridge cases and the bullets are retrieved from the water tank.



Handgun Test Firing



Remotely Test Firing a High Powered Rifle



Bullet and Suspect Sculpture

Arts and Venues Denver, Public Art Program



Artist's Statement – Bullet and Suspect, Sculpture by Cliff Garten

The more than fifty civic sculptures that I have created over the last fifteen years have all responded to the places they were commissioned for. I use sculpture as a tool to create spatial legibility and to create a deeper public interest for these places. Each site is a frame that focuses the intention of the sculptures contained within its spaces. In 2010, I was awarded the commission for a work of art to be situated in the new Denver Crime Lab, by Arts and Venues Denver (formerly DOCA), Public Art Program. The sculptures formed out of this opportunity are a response to the architectural context of the Crime Lab as well as to the work being done in the Lab. Crime Lab director Gregg LaBerge has been very supportive and embraced my working process, sharing the work of the different forensics departments in the Lab to facilitate the research for my sculptures. Greg's enthusiasm for his staff and the work they are doing regionally and nationally is inspiring. My response to these contexts are two monumental sculptures, Bullet and Suspect; whose intrinsic forms use the work of the Lab's research as source material, imparting an imaginative quality to the building that places sculpture face to face with science.

Each sculpture for the Crime Lab is a purposeful pairing of two forms, as I quickly realized that what the lab does on a day-to-day basis is to match one piece of evidence against another. This is true at a human scale, such as a fingerprint, as well as at the most fine-grained scale; where digital archives are searched for a DNA match. Bullet in the central atrium references ballistics -- the mark of a firing pin or the rifling of a barrel and its bullet. I thought that the record of motion and friction in the materials and images I saw in the ballistics lab are similar to sculpture, where material is transformed and a new state of matter is observed. Like sculpture, these observations can be quite visceral and quite intuitive. The narrowing down of evidence now extends to the very substance of genetic material. Suspect in the north atrium is composed of two inverted strands of spiraling material, that imply an infinite motion whose process ends, in the view of the Crime Lab, when the two strands are matched through the Lab's immense computerized data base, as Gregg demonstrated for me during my visit.

Responding to the work that goes on within the Lab also means using the sculpture to respond to the architecture itself. The buildings are designed so that the circulation around a north atrium visible from the street and a central atrium inside the building insures that everyone sees everyone who works in the building. It was clear to me that these atriums offered maximum impact for the sculpture within the collaborative nature of the Crime Lab. The atriums also had the advantage of scale, allowing the sculpture to run through the building over 38' in the case of the north atrium. Perhaps more importantly, these spaces allowed the sculpture to interact with light, both natural and LED. Energy efficient LED lights are placed throughout the atrium to illuminate the sculptures by day and night. During times of shadow in the atriums or at dusk, the sunlight influences the LED light, producing a subtle glow to the sculptures with each changing hue.

The sculptures are created as volumes that can be both transparent and solid, depending upon the viewer's position in the atrium. The sculptures are made up of hundreds of laser-cut brushed aluminum plates that are strung on cables. A delicate pattern of shapes is cut out from each plate, to render them even more transparent. At eye level the sculptures' sectioned plate structure allows the viewer to see through the sculpture so that the sculpture does not totally block the activity of one side of the atrium from the other. However, when you are looking up or down the atrium, the angle of your view causes the plates to compress and the object is no longer transparent, but solid and reveals its exterior contours. You can never quite grasp the entire sculpture from one vantage point. The sculpture reveals itself as you move from one place in the atrium to the other and put together the entire picture, much like a criminologist working the scene of a crime.

About the Artist: Cliff Garten (www.cliffgartenstudio.com)
Artist Cliff Garten is sought after for his evocative and nuanced site-specific sculpture. Garten creates large-scale sculptures that seamlessly integrate within urban space, landscape, and infrastructure environments. His body of work has been praised for the way it utilizes light to create energy, inspires interest in public activity, and reframes a sense of place within public and private realms. Over the past fifteen years, Garten has completed more than fifty-five artworks for public and private places throughout the U.S. and Canada in collaboration within significant architecture, landscape architecture, and engineering projects. He is the recipient of numerous awards and fellowships from the National Endowment for the Arts, Bush Foundation, Jerome Foundation, Americans for the Arts Public Art Network, and American Society of Landscape Architects. His studio is based in Venice, California.





ISO 17025:2005 Accredited



We are committed to quality results.

Quality assurance dictates that testing be conducted consistently, validly, and at a high standard. For example, the laboratory cannot start using a new method, instrument, or chemical on casework without making sure it will give a consistent and reliable result. Just as with medicine, it is important to verify that a new method, instrument, or chemical works in a controlled environment prior to using it in real-world practices. Defining the limitations on new techniques is essential. In the criminal justice system, it is highly important to correctly identify individuals associated with a case. Without conducting testing the same way every time an item of evidence is examined, the results may be unreliable. Accreditation means that the laboratory will be held accountable to standards industry-wide for example as part of the quality assurance program; each forensic scientist must undergo proficiency testing which ensures that a scientist can achieve an expected result. The crime laboratory utilizes external testing services in order to verify the competency of our scientists.

The questions asked of the forensic scientists are no longer just "what were the results" but "how did you get the results" and "how can you be sure these are the correct results?" The laboratory chose to answer these questions by implementing an internationally recognized quality management system called ISO 17025:2005.

ISO is a "Forum for cooperation and consensus"

Standards ensure desirable characteristics of products and services such as quality, safety, reliability, efficiency and interchangeability - and at an economical cost

Familiar items in your household that comply with ISO include:

- Rulers
- Tires
- Photographic Film
- Compact Discs
- Toothbrushes

- Electrical wiring
- Cable to your TV
- Microchips
- USB Drives
- And many many more...



Definitions:

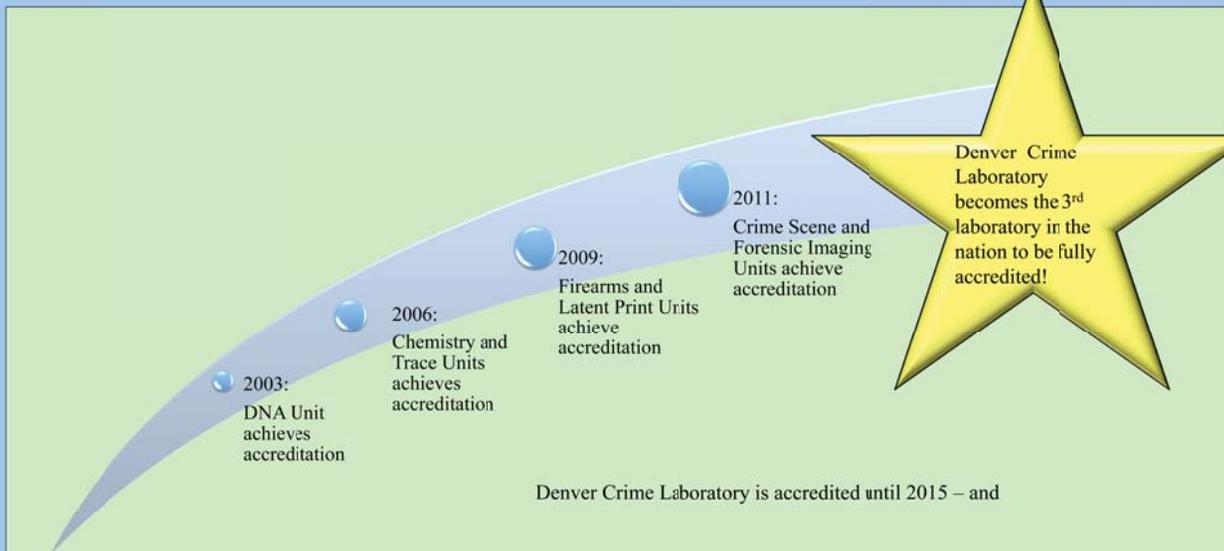
ISO – International Organization of Standards
Derived from the Greek *isos* meaning **equal**
17025:2005 – The standard for testing and calibration laboratories, updated in 2005

Accreditation – to ascribe or attribute; to give official recognition to, sanction, authorize; **to certify or guarantee as meeting required standards** (1)

(1) accreditation. (n.d.). *Collins English Dictionary - Complete & Unabridged 10th Edition*. Retrieved May 10, 2012, from Dictionary.com website: <http://dictionary.reference.com/browse/accreditation>

Laboratory Mission

"The goal of the Denver Police Department Crime Laboratory is to provide analysis and interpretation of case evidence, ensuring the quality, integrity and reliability of its work through an ongoing quality assurance program. The operating philosophy is that quality cannot be assumed – it must be actively pursued and demonstrated by the organization and all its members."



Denver Crime Laboratory is accredited until 2015 – and

Better Denver Bond Program

The Better Denver Bond Program funded the planning, design and construction of the new Denver Crime Laboratory.

The City & County of Denver's \$550M Better Denver Bond Program works to preserve, renovate and create amenities that touch resident's lives – including public safety facilities, roads, libraries, parks, recreation centers, human services, city buildings and cultural facilities. Approved by voters in 2007, the bond program is generating millions of dollars for the economy, preserving and creating jobs and making Denver a more attractive place to live, work, and invest in for the future.

For more information about the Better Denver Bond Program, visit www.denvergov.org/betterdenver

