



center for processing vehicle evidence

Written by Kristi Mayo

Photo by Kristi Mayo

IN AN IDEAL SITUATION, a vehicle that has been involved in a crime is processed for evidence in a secure, climate-controlled facility. Through necessity and invention, most crime-scene units have probably established a way to make this happen—and in most cases this likely involves bringing the vehicle to one of the parking garages or maintenance bays usually utilized by the police or other emergency vehicles.

That is how the the Kansas City (Missouri) Police Department (KCPD) Crime Scene Investigations Section has always managed vehicle processing—that is, up until February 2010. In late January of this year, the KCPD crime-scene and crime-laboratory personnel were just beginning to move into their own new, 5,000 square-foot vehicle processing facility.

“The new vehicle processing facility is a place where we can work on our own time,” said Lori Keller, a crime-scene technician with the KCPD.

It looks like a simple mechanic’s shop ...but it is 5,000 sq. ft. of space dedicated to processing evidence from vehicles that were involved in criminal activity.

The custom building features six standard-size bays that are located in the largest, open portion of the facility, plus a separate bay that can be completely blacked out to allow for luminol processing. And, should the need ever arise, a door at one end of the building can be opened, allowing an entire semi-trailer truck to be pulled inside and parked perpendicular to the six standard bays, thereby allowing processing on a much larger scale.

“That is just in case,” said Captain Jack Foster, who heads up the KCPD Crime Scene Investigations Section. “I doubt we will run across that kind of situation too often.”

The situation where an entire semi needs to be processed for evidence may be rare, but it was that kind of forward thinking that went into the planning process for the new KCPD Vehicle Processing Facility. Coordination of all involved—the city administrators, the KCPD’s Capital Improvements office, the crime-scene and crime-laboratory personnel, and the architects and builders—helped create a facility that is quite unlike anything else of its kind in law enforcement.

The needs, the wants, and everything in between
According to Police Officer Lee Rafferty of the KCPD Capital Improvements office, the police department had been thinking for years about setting up a dedicated vehicle processing facility.

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Photo by Steve Salzer, El Dorado, Inc.



Each of the seven bays are clearly numbered from the outside to allow simple communication with the tow-truck drivers who are delivering vehicles to the facility.

A canopy on the front of the facility provides an additional 2,000 square feet of covered space that can be used if all of the bays are occupied.



Photo by Steve Salzer, El Dorado, Inc.

“We always thought that we would love to have a vehicle-processing facility,” said Rafferty. And when the city began planning to build a new vehicle impound lot, it looked like the crime-scene unit had found the perfect location for its facility. The impound lot is situated in a location central to the Kansas City metropolitan area, just off of an Interstate Highway beltway. And since vehicles involved in crimes eventually end up in the city’s impound lot, it only made sense to have them processed for evidence in the same location where they would eventually be stored.

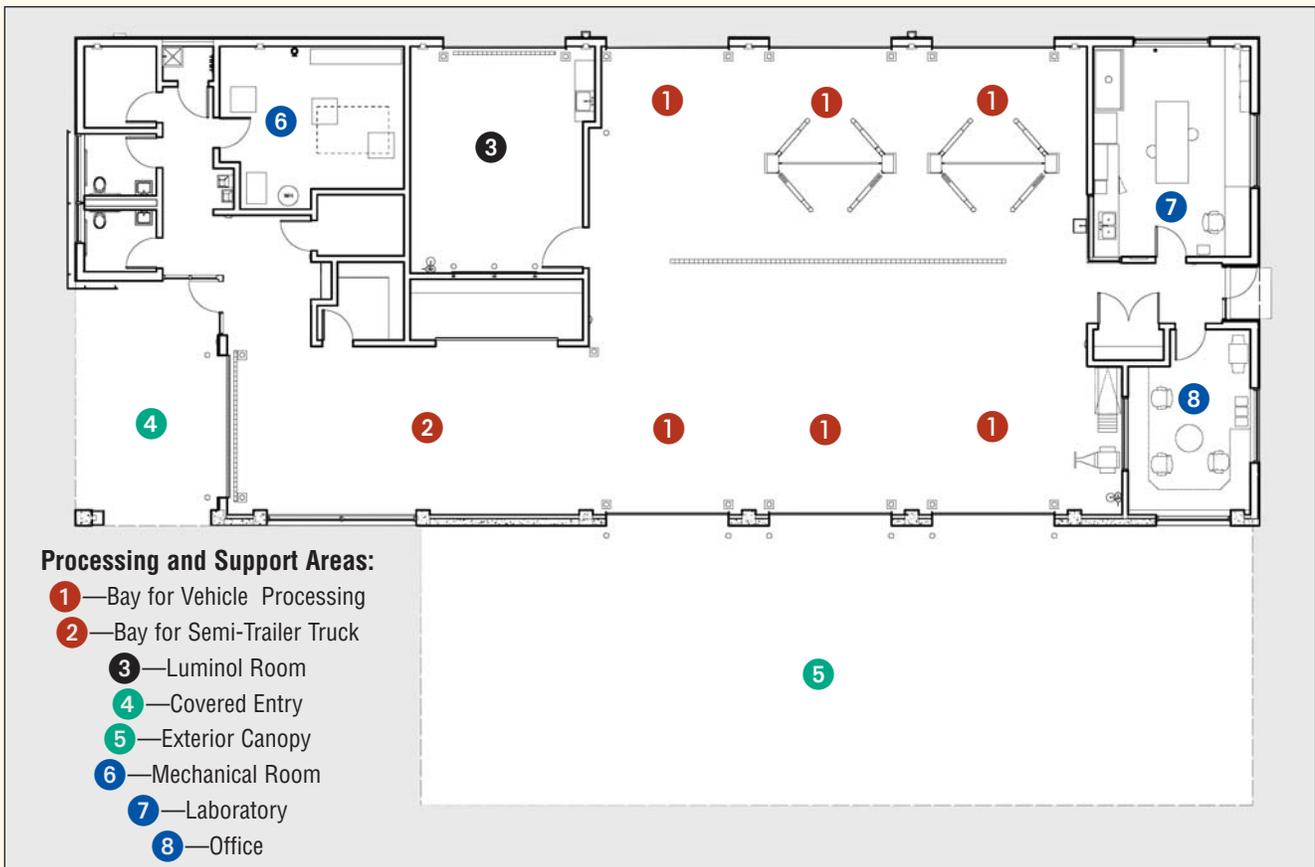
“I sat in on the planning for the impound facility,” said Rafferty. “We kept it in the backs of our minds how we would like the processing facility laid out in relation to the rest of the impound facility. The city approved this project about 18 months ago.”

As the planning process began, Rafferty said the KCPD looked around their geographical region to try to find another department with a dedicated setup that had the capacity for simultaneously processing multiple vehicles for evidence.

“We couldn’t find one anywhere,” Rafferty said, “so we had no standard

to work from in planning our own new facility.”

Working closely with the crime-laboratory and crime-scene personnel, the Capital Improvements office put together what they called their list of *essentials* and *wants*. The people who work day-to-day with handling evidence had a lot of knowledge and practical experience to contribute to the planning phase—details that included painting the interior walls in the facility 18% gray for optimal ease in photographing evidence; or a sink with foot-pedal water controls to eliminate the need to turn handles



Floorplan courtesy of El Dorado, Inc.

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Photo by Steve Salzer, El Dorado, Inc.



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Photo by Kristi Mayo



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Photo by Kristi Mayo

Architects with El Dorado, Inc. spent time at the Kansas City Police Department Crime Laboratory to find ways they could help the crime-scene and laboratory personnel work more efficiently in the KCPD's new vehicle-processing facility.

① An on-site laboratory provides natural ambient light, open workspace, and special equipment such as a water polisher, a superglue fuming chamber, a drying cabinet, and a large fume hood.

② A sink with foot-pedal controls was one idea the architects gained from visiting with crime-lab personnel.

③ An emergency shower and eye-wash station is one clue that this "auto shop" is also a laboratory.

④ The luminol/superglue room can be completely blacked out to allow an entire vehicle to be processed with luminol.



④

Photo by Steve Salzer, El Dorado, Inc.

with hands were covered with fingerprint powder or other materials.

Over the course of two bid processes, the Capital Improvements office secured a bid that was below budget. In the end, the planners were able to include all of the *essential* items that were on the original list, as well as most of the *wants* items.

"This building didn't get the short end of the stick by any means," said Rafferty. "The crime laboratory got more than they expected. Through good construction and architectural management, we were able to be consistent in what we had planned. The downturn in the economy also meant a reduction in construction prices, which helped us get more for our money."

A mechanic's shop that also happens to be a crime lab

At first glance, the KCPD Vehicle Processing Facility appears to be a standard mechanic's shop. In the large, open layout of the main bay area, there are six vehicle bays, each equipped with air tools and a work light, all suspended from reels on the ceiling. These tools will be used for removing tires or other parts from vehicles.

Two of the bays have lifts, which will be useful when technicians need to look under a vehicle for damage or for trace evidence. The lifts are wide enough to accommodate a flatbed tow truck, so the tow-truck driver can pull straight through the bay area, unload the vehicle, and drive straight out the other side.

Each bay is clearly numbered on the outside to make it simple to communicate to tow-truck drivers where the vehicle should be dropped off.

Another example of forward thinking was the acquisition of a Power Pusher, a pedestrian-operated "tug unit" that can be used to move vehicles in and out of the facility without the need to call a tow truck for assistance. The Power Pusher is a compact, battery-powered unit that is capable of moving almost any vehicle, up to a semi-trailer truck.

Outside, there is an additional 2,000 square-feet of space below a canopy that extends past the entrance to the bays. In theory, said Rafferty,

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there could be six vehicles inside being processed at once and another three outside under the canopy.

A seventh bay—designed specifically for processing vehicles with luminol and superglue—is located just off the main bay area in a garage-sized room that has no windows. When the garage door and the door to the main bay area are closed and the lights are switched off, the room is totally dark—which makes it ideal for viewing and photographing a vehicle processed with luminol. This room also features a custom-made plastic enclosure that can be pulled out from the wall to completely surround a vehicle and serve as a fuming tent. The tent reduces the volume of the room to make it more efficient when processing a vehicle with cyanoacrylate ester (superglue).

For other light-sensitive processes, the windows in the main bay area—designed to make maximum use of natural light—can be covered with motorized shades simply by turning a switch. This does not completely black out the area, but it does significantly reduce the amount of outside light that is able to enter the facility.

The interior walls of the facility are covered with cement fiberboard, chosen because of its sturdy nature. “It is a crime lab, but it is also essentially an auto shop, so we constructed it with durability in mind,” said Steve

Salzer, project architect with Kansas City, Missouri architectural firm El Dorado, Inc. The material is also easy to wash, so that fingerprint powder built up over time can be removed.

Lighting in the main bay area is typical shop lighting, with an “up-light component to the light fixtures that cuts down on shadow-casting and hot spots when doing photography,” said Salzer.

Step away from the main bay area and you will find a couple rooms that more closely resemble a working crime laboratory. A dedicated laboratory features a water polisher, superglue fuming chamber, drying cabinet, and a large fume hood—as well as ample work surfaces, storage, and a refrigerator. The second room is a report-writing office.

Evidence collected at this facility will be tagged and bagged using a digital barcoding system that ties into the network at the KCPD Crime Laboratory, located about 20 minutes away. Laptops and barcode scanners will allow the technicians to record evidence right at the side of the vehicle they are processing, if necessary. Physical evidence will then be transported directly to the laboratory’s property-and-evidence room.

Although evidence will not be stored on site, security was a major consideration in the design of the facility. Crime-scene and crime-labo-

ratory personnel are the only people with direct access to the building; detectives and other police officers are not issued key cards. Vehicle-entry gates to the facility are controlled by keycard, as are doors to the interior of the facility. The feed from security cameras at the vehicle processing facility ties into the main crime laboratory for remote viewing.

Finally, the vehicle processing facility (along with the entire vehicle impound facility) was built with an environmentally sound purpose. Features such as long-lasting corrugated zinc exterior siding; a rainwater-management system that channels water from the roof into a rain garden; the use of low-VOC paints; and maximum use of natural light helped earn the facility a Silver certification with the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

While watching the other personnel familiarize themselves with the facility in late January, Crime Scene Technician Keller acknowledged how fortunate the KCPD is to have this state-of-the-art, dedicated vehicle processing facility. She added that the facility will certainly be put to good use. “We probably process about 15 cars a month,” said Keller. “That includes carjackings, stolen autos, hit-and-runs, shootings... But if you think about it, almost every crime involves a vehicle.”

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