

# **CHAPTER SIX**

## **FACILITIES**



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### **Facilities**

A number of general concepts and considerations must be taken into account in developing a driver training facility. There are two types of facilities: temporary and dedicated. A permanent site requires a considerable capital outlay for construction, and continuous allocations for maintenance and staffing. There is no one ideal size or design. Each state, agency, or group of agencies must determine its needs and available resources, before proceeding.

#### *Part 1: EVO Tracks*

To assist in assessing the adequacy of current facilities, or planning for the development of a new facility, a number of factors must be considered. The primary reason for all of the following considerations is safety.

#### *Location*

1. Adequate space for the safe performance of the driving exercises is essential. The size of the space will be dependent upon:
  - a. Type of exercises to be carried out
  - b. Number of exercises performed simultaneously
  - c. Number of personnel to be trained annually
  - d. Speeds to be achieved during training
2. A location should be selected where there will be minimal impact on the immediate residents due to noise generated by acceleration, braking, squealing of tires, and sirens, as well as the traffic flow into and out of the facility.
3. The exercise area must be flat and free of dips or bumps unless required for an exercise. There must be a sufficient grade to allow water to run off the surface. A grade of one percent is ideal.
4. The area surrounding the site must be free of curbing and obstacles.

5. The minimum area should be 300 x 600 feet. This size will be sufficient for conducting multiple exercises simultaneously. (See Appendix C, Evaluation Devices, for a description of exercises and dimensions.)
6. Speeds and other exercise specifications can be adjusted to fit the constraints of the facility without reducing the dynamic forces required for skill development, by narrowing the lanes, shortening the queue, and reducing the speed.
7. A minimum of 50 feet should separate each exercise area if more than one vehicle is operating on the site.
8. Skid control exercises require a minimum area of 24 x 200 feet.
9. Pursuit exercises require a separate area.
10. The overall design should minimize the risk of liability. Even so, there should be sufficient insurance protection for anticipated claims.
11. OSHA and state requirements must be met.
12. Signs, barricades, or fences should be used to close the area off from unauthorized personnel.
13. Drinking water, toilets, facilities for washing up and eating, shelter from the weather, and a classroom should be at or in close proximity to the facility.
14. Outside communications for emergency situations are essential.
15. The agency should consider having emergency medical and firefighting staff on site during training.

### *Vehicles*

1. Vehicles used for driver training must be in good mechanical condition and it is best if they are similar to those used on the street, i.e., if students will use police package vehicles with stiffer suspension systems, it is best to train with that type of equipment. If one manufacturer's model handles significantly differently from the make and model used on the job, it should not be used for dynamic exercises.

2. Each vehicle should be inspected daily before it goes on the range. Use a checklist to ensure that all parts are checked. The checklist will also serve as a record should anything happen. (See sample checklist.)
3. An assortment of tools, a floor jack, an air compressor, and tire pressure gauges are needed for vehicle inspection and minor adjustments.
4. A supply of extra gasoline, coolant, motor oil, and transmission and power steering fluids should be readily at hand.
5. Jumper cables should be available.
6. A vehicle with slick tires is needed for use on the skid pad. It should be equipped with a separate brake pedal on the instructor's side of the vehicle, or a skid simulator.

### *Equipment and Supplies*

1. Diagrams and specifications of the exercises
2. Variety of spray paint colors or yellow lumber marking crayons to allow quick and accurate resetting of cones
3. 100-foot measuring tape for laying out exercises
4. As many as 300 traffic cones of differing sizes to define exercise boundaries and close off areas
5. 12-volt or 115-volt portable traffic light with a hand control
6. Vehicle inspection forms for inspecting vehicles prior to use on the range
7. Ingredients for making a skid pad: water, water and detergent mix, sand
8. Radar instrument or a stop watch to clock vehicles going through an exercise
9. Portable tape recorder with a tape of siren noises
10. Pocket calculators
11. Bullhorn, or vehicle equipped with a public address system

12. First-aid supplies and equipment
13. List of range rules posted in a conspicuous spot
14. Some form of radio communication that links the range or exercise controller and the driver

### *Staffing*

1. Instructors who meet certain minimum requirements
2. Instructor-to-student ratios which maintain firm control over the actions of students and vehicles
3. Designated facilities manager in charge of overall range operations

### *Range Safety*

Range safety must be a priority in law enforcement emergency vehicle driver training. Safety must be a value promoted by all levels of management, trainers and trainees. The value of safety must be on a par with other effective, job-related training for officers.

Every range should have a formally-adopted set of range safety rules. It is preferable that these rules be adopted and approved by the agency's chief administrative officer and placed in the agency policy and procedure manual. Furthermore, the instructional staff should provide an orientation on the range safety rules before ever allowing student-drivers on the track. Finally, instructors must "walk the walk," and "talk the talk" with respect to safety. Students have a tendency to copy the instructor's behavior. The instructor should be a model of how the range safety rules are implemented.

This Guide contains a model set of range safety rules. See Illustration 6.1.

### *Minimum Facility Requirements*

Several State standard setting (Peace Officer Standards and Training) organizations have established fairly clear rules for the accreditation or approval of driver training facilities. These rules must be followed at a minimum and usually agencies are allowed to exceed POST standards.

For additional information, contact the Florida Department of Law Enforcement, Division of Criminal Justice Standards and Training, P.O. Box 1489, Tallahassee, FL 32302, or your own state's POST agency.

Many of the exercises found in Chapter 8 of this Guide can be scaled to "fit" the widely-varying kinds of training facilities used for law enforcement emergency vehicle operation. In fact, agencies are limited only by the imaginations and creativity of their driving instructional staff in finding facilities suitable for effective training for local conditions. Certainly, any that are used must comply with any accreditation requirements that apply and with a prudent concern for the safety of instructors and trainees alike.

### *Description and Design of Layouts*

Following is a list of existing dedicated driver training facilities currently in operation. This is not a complete listing of existing facilities, but it should provide the reader with a variety of options to consider as efforts are undertaken to design and develop a permanent facility.

California Highway Patrol

San Bernardino County Academy

Southeast Florida Institute of Criminal Justice

Federal Law Enforcement Training Center Glynco, Georgia

Law Enforcement Training Board, Indiana

Kentucky Public Safety Academy

Michigan State Police Training Academy

Minnesota Highway Safety Center

North Carolina Highway Patrol Training Center

New Mexico Department of Public Safety and Recruit Training

Oregon Board on Public Safety Officer Standards and Training

South Carolina Criminal Justice Academy

Commonwealth of Virginia Department of Criminal Justice Services

Northern Virginia Criminal Justice Academy

Washington State Patrol

Federal Bureau of Investigation

## *Dedicated Facility Planning*

To assist in assessing the adequacy of current facilities or in planning the development of a new facility, agencies may wish to consider the following:

1. Justification

Agencies must determine the number of personnel to be trained, the type of training to be offered, and the frequency of the training. This should be an initial consideration prior to any facility planning.

2. Budget

Agencies must determine their available funding and resources. Agencies may consider sharing the facility with other departments, such as fire and EMS. This will broaden the sources for funding. Funding should ensure that all applicable OSHA and state regulations are met.

3. Location

The availability of land, environmental impact, and real estate costs will govern the facility location.

4. Staffing

While permanent staffing is preferred, it is expensive. Agencies should attempt to establish a cadre of full-time and part-time staff who would be easily available. All staff members holding an instructor position must meet the appropriate agency's minimum driver instructor certification requirements. The ideal instructor-to-student ratio should be 3:1. One of the certified instructors should be designated as "range master" and be placed in overall charge of the range operation.

## *Part 2: Alternative Driver Training Areas*

Most agencies in the United States do not have access to a dedicated, well-designed law enforcement emergency vehicle operations facility. Nor do they have the financial resources, or staff with extensive driver-training experience or background to run a full-time, organized program. However, agencies have many alternatives to meet the need for initial and periodic law enforcement driver training.

## *Finding a Site*

If an agency has little or no access to a dedicated facility, there are many alternatives available by using the imagination of the agency's leadership and trainers. This Guide has suggested a number of exercises in Appendix C that can be scaled to areas of varying dimensions. The smallest of these can be implemented in a space of no more than 110 by 300 feet. With some creativity, the driver trainer could design good driving exercises in areas even narrower than this!

Possible driver training sites include five general categories (1) race tracks, (2) drag strips, (3) parking lots, (4) airports, and (5) closed roadways.

### 1. Race Tracks

Larger race tracks with time available in their schedules are becoming harder to find. However, owners are usually very receptive to use of a portion of their track or access-road system for training, when approached by emergency service agencies with an organized driver training program,

### 2. Drag Strips

Drag strips are available most weekdays and some weekends. They are adequate for low-speed courses with built-in safety, such as run-off areas on the side and end of the track. This helps from the standpoint of safety. They all have large parking areas and access roadways which can be used to set up exercises.

### 3 Large Parking Lots

Parking lots are available for low-speed driving courses with space as small as 100 x 300 feet or larger. Shopping malls and large businesses with adequate size may not be available during daytime hours but may be used during nights and weekends. The New Hampshire Police Standards & Training Council has combined a paved skid pad, portions of a parking lot, and two skid simulators to provide a program in an area where space is limited.

### 4. Airports

Airports often have runways that can be closed down and made available for driver training. All FAA regulations regarding not crossing active runways must be complied with.

## 5. Closed Roadways

When all else fails, the driver training staff should consider blocking off sections of existing right-of-way for training purposes. This will involve close coordination with state and local agencies. For safety purposes an officer should be posted at the perimeter of the area, because people will drive around barricades and pylons. Choose an area without curbs, ditches, bridges, and obstacles like trees and walls, and with good runoff areas. A number of creative alternatives may be available on a one-time basis, such as a bridge under construction as a site for low-speed skill exercises like backing, parking, braking, etc.

### *Vehicles*

New vehicles equipped and designed for driver training use are not always available on a limited budget or to small agencies. An alternative is the use of surplus vehicles which can be obtained at the time of turnover.

When using a surplus or used vehicle, ensure that the vehicle is adequate for use as a driver training vehicle. A thorough inspection will be necessary. Primary concerns will be suspension, braking system, steering mechanism, door locks, restraint devices, etc.

Sources for vehicles include large car dealer agencies who may be willing to allow the use of vehicles in exchange for local press coverage or public relations. Other sources for vehicles include military surplus, vehicle manufacturers, drug seizures, large law enforcement agency surplus vehicles, donations by local businesses or corporations, etc. Another source is the duty patrol vehicle itself.

The duty patrol car could be used in low-speed exercises. Caution should be exercised not to "push" such vehicles with high-speed exercises or those that push the vehicle to its limits. Useful low speed exercises include slalom, backing, turnaround, skill, precision, and parking. These exercises can be conducted in limited spaces and are conducive to inclusion within regular officer shift assignments.

### *Equipment and Supplies*

Road cones (pylons) can be obtained through local vendors, or borrowed from highway departments or road construction companies.

Road chalk is best used in non-permanent driving track areas because it eventually wears off. Paint is more permanent and businesses are reluctant to allow its use.

Repair and maintenance equipment includes a hydraulic jack, air compressor, lug or air-impact wrench, medium-sized hand tool set, jack stand, etc.

A trailer could be useful to an agency that tends to use multiple locations like parking lots, race tracks and airports. Such a trailer should be equipped with a tire rack, compressor, storage compartments for replacement parts and supplies, tools, etc. A van or box truck can be equipped in the same manner and may be available through government or military surplus as well as drug forfeiture.

Agencies with a limited budget might wish to consider the following ideas for providing training with very little expense:

1. Use old milk jugs, painted orange, in lieu of cones. They should be filled with about 2" of water to weight them down. If full, they tend to explode.
2. Road chalk can be used to mark lanes, pylon positions, etc. However, rain can damage such markings.
3. Skid areas can be augmented by water sprayed by fire equipment commonly used by volunteer fire departments. Often these agencies are willing to do this for the experience in operating equipment.
4. Other safe means of inducing skids include sand, environmentally safe dish detergent, specially-treated water, etc. Frozen lakes or other bodies of water can also be used to teach skid control. Private vendors may have equipment that simulates conditions with poor adhesion. While these are good training aids, they tend to be expensive. A computer-assisted driving simulator may also be used to simulate poor adhesion conditions.
5. Used tires can be used for driver training provided they have not worn beyond the tread wear bar. Low-speed driving is not disadvantaged by using used tires. This is a tremendous cost savings for the agency.
6. Vehicle repair and maintenance alternatives include a high school or technical college vehicle shop program. A state or county correctional facility with a job training program might also be a low-cost source for maintenance and repair.

There are a wide variety of means by which an agency can implement a driver training program without incurring great cost. Most often the only limit is the imagination of the driver training staff, the agency, and officers.

## *Staffing*

Many agencies cannot afford to hire full time instructors to assist with law enforcement driver training. Other alternatives may include:

1. Use master instructor supported by assistant instructors
2. Assistance from state training organization
3. Utilize local community or technical college personnel
4. Contract with a private contractor (usually prohibitive due to cost)

This Guide provides criteria for the identification and preparation of master instructors and support instructors. The Guide also suggests an ideal student/instructor ratio of 3:1 for most law enforcement driver training. This means that the agency should seek to develop a cadre of assistant instructors upon which they may call on a regular basis.

One of the best ways to address instructor availability is to pool instructional and equipment resources with several agencies in the region. Many agencies have found this to be an effective way to provide cost-effective and available law enforcement driver training.

## *Conclusion*

While a dedicated training facility is clearly the ideal, its absence should not discourage an agency from conducting effective law enforcement emergency vehicle training. For example, the exercises found in this section may all be "scaled" or tailored to fit the kinds of facilities typically used in lieu of dedicated tracks.

## ***Illustration 6.1***

### **Sample Range Safety Rules**

1. All vehicle operations, practical exercises, and training activities on the driving range will be under the direct supervision of an instructor.
2. Upon the command to **STOP**, all operators will immediately brake their vehicles to a complete stop and remain stopped until instructed otherwise by an instructor. Any student, instructor, or staff person may issue the command to **STOP** at any time an unsafe situation is occurring.
3. During any vehicle operation, all occupants of the vehicle will use all available occupant protection devices.
4. The maximum driving range speed limit for all vehicles is 10 mph unless otherwise directed by an instructor.
5. All vehicles and pedestrians will yield the right-of-way to any vehicle actively engaged in a practical exercise.
6. The vehicle's emergency equipment will be operated only under the direction and supervision of an instructor.
7. Students will not talk to, distract, or interfere with any vehicle operator and/or instructor actively engaged in any practical exercise.
8. Students will remain a safe distance from the practical exercise area when not operating vehicles. Instructors will inform students where to stand and when to replace any displaced cone(s).
9. Beverages, food, and tobacco products will be consumed in designated break areas only.
10. Operators will shut off engine, set parking brake, and remove ignition key prior to exiting vehicles.
11. Each student will perform a pre-operational inspection of his/her assigned vehicle daily.
12. Vehicle windows will be either all the way up or all the way down.
13. Wheel covers will be removed from each vehicle used on the driving range.
14. Students under the influence of any medication or drug are required to inform the SDIT School Director.

15. All students and instructors will hold a valid motor vehicle operator's license.