

## **Annex B: Range Specification Requirements**

The following Range Specification Requirements are issued and relate to the requirements for the approval of firearm ranges and galleries to be operated in Tasmania:

- Appendix 1 – Range Specification Requirements for Simulated Field (Australian Sporting) Shooting Ranges
- Appendix 2 – Range Specification Requirements for Air Rifle & Handgun Shooting Ranges
- Appendix 3 – Range Specification Requirements for Handgun, Rim Fire Rifle & Single Action Shooting Ranges
- Appendix 4 – Range Specification Requirements for Indoor Shooting Ranges
- Appendix 5 – Range Specification Requirements for Rifle Shooting Ranges
- Appendix 6 – Range Specification Requirements for Shotgun Shooting Ranges
- Appendix 7 – Range Specification Requirements for Crossbow Ranges
- Appendix 8 – Range Specification Requirements for Shooting Gallery Ranges
- Appendix 9 – Range Danger Area Calculations
- Appendix 10 – Range Danger Area Templates

## ***Appendix 1 Annex B: Range Specification Requirements for Simulated Field (Australian Sporting) Shooting Ranges***

In accordance with the provisions of Section 151(5) of the *Firearms Act 1996*, the Commissioner of Police must not grant an application to approve a range unless satisfied that the situation, construction, suitability and equipment of the range do not cause a hazard to the users of the range, the general public or any other property.

These Range Specification Requirements detail the minimum requirements for the siting and construction of Firearm Ranges for controlled events. Considering the many and varied locations of ranges e.g. topography, it is considered unreasonable to be prescriptive on all details. However, identifying risks utilising the checklist and applying the Riskex Risk Score Calculator will provide a uniform approach to the inspection procedure, evaluation of collected data and reporting.

An application for range approval must be in an approved form, be accompanied by the prescribed fee and lodged with Firearms Services together with:

- an aerial photograph with the range location marked;
- TasMap (25 000:1 scale) with the range marked;
- a sketch map containing measurements of the width and length of the range and detailed description of the mounds or barriers surrounding the range or such other mechanisms for containing a projectile fired upon the range (for example, height, number, location, direction and width of mounds);
- details of public liability insurance;
- other information such as fall of shot rights; and
- a letter from the local government authority indicating that the range and any buildings fall within their local planning scheme.

Whilst range approval is granted in accordance with the *Firearms Act 1996*, all operators are to ensure they operate the facility within environmental guidelines, including noise, contamination and storage of substances.

### **1.0 RANGE SITING**

#### **1.1**

Ranges must be sited in such a manner that while controlled shooting is in progress, risk of injury to members, spectators, the general public and also any damage to any property is negligible(risk score  $\leq 10$ ?).

## **1.2**

Ranges must conform to statutory requirements with regard to Planning and Zoning Regulations and Noise Abatement in force at the time of establishment of the range.

## **1.3**

Ranges must be sited in order that any inconvenience to the public is minimised.

## **2.0 RANGE IDENTIFICATION**

### **2.1**

Ranges must be identified when controlled shooting is in progress in such a manner that a person moving into the area will be able to recognise it as a firearms shooting range.

### **2.2**

Ranges must be identified when controlled shooting is in progress by notice boards and warning flags.

### **2.3**

Noticeboards carrying an appropriate warning must be positioned at all normal access points to the range.

### **2.4**

Noticeboards must be big enough to be seen from a reasonable distance from the access points to the range.

### **2.5**

The writing on the noticeboard must be clear and precise eg. 'Shotgun Shooting Range' and 'When Flags are Flying Shooting is in Progress'.

### **2.6**

Warning flags must be positioned at all normal access points to the range.

### **2.7**

Warning flags must be visible from all likely approaches to the range.

### **2.8**

Warning flags must be displayed high enough in order to be visible above any immediate obstruction.

### **2.9**

The colour of the warning flags must be bright red.

### **2.10**

When controlled shooting is in progress at night all flags must be replaced or supplemented by red lights.

## **3.0 RANGE LAYOUTS**

### **3.1**

Ranges must be laid out in such a manner as to separate the normal range facilities from controlled shooting zones.

### **3.2**

Normal range facilities may include club rooms, toilets, playgrounds, storage sheds, car parking and barbeque areas etc.

### **3.3**

Controlled shooting zones are areas used for shooting which have no normal public access in the field of fire from the shooting stand for a distance sufficient to provide an adequate safety margin for any persons who may inadvertently be positioned in the field of fire.

### **3.4**

For all controlled shooting, each shooting stand being used must have a controlled shooting zone.

### **3.5**

These zones may be of irregular shape and also overlap those of other stands.

### **3.6**

Irrespective of any other consideration, all directed shots must be confined to the controlled shooting zones.

### **3.7**

The extent of a controlled shooting zone depends on a number of factors and will vary due to the topography and the layout of the shooting stands and target trajectories.

### **3.8**

Generally, the extent of a controlled shooting zone would be at a distance from the shooting stand not less than the maximum range of the largest size shot permitted for events being conducted.

### **3.9**

The extent of a controlled shooting zone may be varied in distance by the topography of the site being such as to permit containment of shot fall by hills, appropriate vegetation, quarry faces, valleys etc.

### **3.10**

The extent of a controlled shooting zone may be varied in distance by the general course layout, natural features, shooting stand/target trajectory relationships, erection of artificial barriers etc. which will result in a reduction to the range of shot fall.

## **4.0 RANGE EQUIPMENT AND USE**

### **4.1**

All traps and other associated equipment or facility must be safe, well made and properly maintained.

### **4.2**

Protection rings or barriers must be fitted to all traps, both manual and automatic, in such a manner that operating personnel are protected both vertically and horizontally from the sweep of the trap arm.

### **4.3**

Clear and adequate operational and safety instruction must be provided for all traps where any casual operators may be required to operate a trap eg. shooters where traps are not manned.

### **4.4**

Clear and adequate operational and safety instruction must be provided adjacent to all automatic traps.

### **4.5**

Before loading the trap disconnect power source and manually release the trap arm.

### **4.6**

If a mechanical failure is evident, contact relevant range personnel immediately.

### **4.7**

All traps must be capable of throwing targets consistently.

### **4.8**

All trap positions must be set in such a manner that the equipment can be operated with safety. This includes positioning of target boxes etc.

### **4.9**

Trap positions within the controlled shooting zones must be adequately protected from all directed shot and/or shot fall.

### **4.10**

All such positions must be provided with a red warning flag.

#### **4.11**

All trapping personnel must be instructed on the safe operation of equipment and other safety procedures.

#### **4.12**

Trapping personnel must be provided with eye and ear protection where applicable.

#### **4.13**

A first aid kit is to be positioned at the firing point during firing of the firearms. This first aid kit is to have adequate equipment to be able to effectively deal with an injury caused by a firearm projectile. At the firing point, there is to be located the capability to be able to communicate with the Tasmanian Government emergency services, in the event of an injury caused by the use of a firearm.

### **5.0 RANGE CONTROL**

#### **5.1**

Ranges must be controlled by suitably qualified range personnel when controlled shooting is in progress.

#### **5.2**

Ranges must be controlled to ensure that shooting takes place only in the controlled shooting zones.

#### **5.3**

Access to the shooting stands must be controlled so that only the persons authorised at the time are forward.

#### **5.4**

Access to the controlled shooting zone and trapping facilities must be restricted to authorised operating personnel and/or range personnel.

#### **5.5**

All ranges must be controlled whilst shooting is in progress by appointed personnel who:

- a. are trained in the safe use of firearms;
- b. have a knowledge of procedures appropriate to that range; and
- c. are suitably qualified in accordance with the specific discipline.

#### **5.6**

Personnel appointed must be responsible to the range management for all shooting activities and for all persons on the range whilst shooting is in progress.

### 5.7

The range management is responsible for overseeing the safe conduct of all shooting stands which compose the range and the safety of persons within the range area.

### 5.8

Range personnel must be clearly identifiable by means of a red arm band to all persons who enter the range for any purpose.

## 6.0 IDENTIFICATION OF A RANGE

### 6.1 NOTICE BOARDS

Notice boards with appropriate warnings must be clearly placed and erected at all normal points of entry to a range.

### 6.2

A notice board must be a minimum of 60 centimetres in depth by 100 centimetres in length with similar wording and colouring as detailed below:

**WHITE**  
Background



**“DANGER”**  
must be in **RED**.  
Other wording  
may be in **RED** or  
**BLACK**

### 6.3 DANGER NOTICES

A danger notice must be big enough to be seen at a reasonable distance and permanently fixed around the perimeter of the property or at areas where likely access to it can be gained by people moving into the area. Danger notices will be a minimum 30 centimetres in height by 50 centimetres in length with similar wording and colouring as below:



**6.4**

If the range facility is temporary, it must be identified with highly visible demarcation lines or barriers. The firing line is used as a reference point to measure the distance to a target. They are also used to establish a safety boundary behind which shooters must remain whilst shooting is in progress.

**6.5**

The width of firing points must comply with the rules as set down for the appropriate discipline or, in the case of casual recreational shooting, must be a minimum of 1 metre wide. The recommended width is 1.2 metres.



## ***Appendix 2 Annex B: Range Specification Requirements for Air Rifle & Handgun Shooting Ranges***

The following Range Specification Requirements apply in general principle to all Indoor/Outdoor Air Firearm Shooting Ranges used in Tasmania for Air Rifle, Running Target Air Rifle, Air Pistol and public Open Air Firearms events.

These requirements **do not** apply for Air Powered Handguns and Rifles used for Paintball shooting as specific requirements are provided for separately.

### **INTRODUCTION**

In accordance with the provisions of Section 151(5) of the *Firearms Act 1996*, the Commissioner of Police must not grant an application to approve a range unless satisfied that the situation, construction, suitability and equipment of the range do not cause a hazard to the users of the range, the general public or any other property.

These Range Specification Requirements detail the minimum requirements for the siting and construction of Firearm Ranges for controlled events. Considering the many and varied locations of ranges e.g. topography, it is considered unreasonable to be prescriptive on all details. However, identifying risks utilising the checklist and applying the Riskex Risk Score Calculator will provide a uniform approach to the inspection procedure, evaluation of collected data and reporting.

An application for range approval must be in an approved form, be accompanied by the prescribed fee and lodged with Firearms Services together with:

- an aerial photograph with the range location marked;
- TasMap (25 000:1 scale) with the range marked;
- a sketch map containing measurements of the width and length of the range and detailed description of the mounds or barriers surrounding the range or such other mechanisms for containing a projectile fired upon the range (for example, height, number, location, direction and width of mounds);
- details of public liability insurance;
- other information such as fall of shot rights; and
- a letter from the local government authority indicating that the range and any buildings fall within their local planning scheme.

Whilst range approval is granted in accordance with the *Firearms Act 1996*, all operators are to ensure they operate the facility within environmental guidelines, including noise, contamination and storage of substances.

## **1.0 RANGE SITING**

### **1.1 SITING**

Inconvenience to the public must be minimised and statutory requirements with regard to planning, zoning, and noise abatement are to be observed.

### **1.2 CONSTRUCTION**

Construction of firearm ranges must be such, that the risk of escape outside of the “Range Danger Area” by any projectile is negligible (Risk Score  $\leq 10$ ?).

### **1.3 SUITABLE CONTROL**

Ranges must be controlled whilst shooting is in progress by personnel who are identifiable to the shooters and who have been adequately instructed on all safety requirements and range conduct for the specific discipline.

### **1.4 RANGE SAFETY TEMPLATE**

When in use the “Range Proper” and “Range Danger Area” must be clearly identifiable as such, as indicated in the approved rules or guidelines for the type of discipline being undertaken.

### **1.5 MEDICAL**

A first aid kit is to be positioned at the firing point during firing of the firearms. This first aid kit is to have adequate bandages to be able to effectively deal with an injury caused by a firearm projectile. At the firing point, there is to be located the capability to be able to communicate with the Tasmanian Government emergency services, in the event of an injury caused by the use of a firearm.

## **2.0 SITING OF A RANGE**

### **2.1**

Owing to the distance that modern projectiles may travel, there is to be a projectile containment area, either natural or man made.

### **2.2**

Irrespective of any other consideration, such as location of range etc, all directed shots must be safely confined to an area that can be effectively controlled.

### **2.3**

Effective containment can be achieved by the use of natural barriers, or the use of pellet traps constructed in such a manner as to prevent the pellet from being a danger to members, users and the general public (risk score of  $\leq 10$ ).

### **2.4 USE OF BUILDINGS**

When constructing or selecting a building for an Air Rifle/Pistol range the distance from the firing line to the target should be 10m. Space behind the firing line must be provided to allow free movement of shooters to the firing line and

allow spectator access. Emergency exits in buildings must not be blocked at any time.

### **3.0 BACKSTOPS**

#### **3.1**

Backstops will generally be a wall of the building protected, if necessary, from damage by pellets that may be not caught by the pellet trap.

#### **3.2**

When necessary, movable safety barriers may be required so that they can be positioned to act as side walls. This allows venues such as halls, sport stadiums, recreational centres, meeting halls, sports grounds, large basements or exhibition halls to be utilised. Protection of all electrical fittings in the range area must also be considered.

#### **3.3**

Materials used must be such that will allow the absorption of the energy from the fired pellet.

### **4.0 LAYOUT OF FACILITIES**

#### **4.1**

Shooting ranges must be laid out so that the muzzles of all firearms when loaded and ready to fire are facing in the direction that the safety template allows.

#### **4.2**

Whilst shooting is in progress access points, such as doors and corridors as well as visitor or spectator facilities behind firing points must be controlled so as to prevent inadvertent or unauthorised access in front of the firing points.

#### **4.3**

Adjacent ranges must be separated by suitable partitions of sufficient width and height, so as to prevent any projectiles from inadvertently escaping into an adjacent range.

### **5.0 SUITABLE PERSONNEL**

#### **5.1**

All ranges must be controlled whilst shooting is in progress by appointed personnel who:

- d. are trained in the safe use of firearms;
- e. have a knowledge of procedures appropriate to that range; and
- f. are suitably qualified in accordance with the specific discipline.

## 5.2

Appointed personnel must be responsible to the range management for all shooting activities and for all persons on the Range whilst shooting is in progress.

## 5.3

The range management is responsible for overseeing the safe conduct of all shooting stands which compose the range and the safety of persons within the range area.

## 6.0 IDENTIFICATION OF A RANGE

### 6.1 NOTICE BOARDS

Notice boards with appropriate warnings must be clearly placed and erected at all normal points of entry to a range.

### 6.2

A notice board must be a minimum of 60 centimetres in depth by 100 centimetres in length with similar wording and colouring as detailed below:

**WHITE**  
Background



**“DANGER”**  
must be in **RED**.  
Other wording  
may be in **RED** or  
**BLACK**

### 6.3 DANGER NOTICES

A danger notice must be big enough to be seen at a reasonable distance and permanently fixed around the perimeter of the property or at areas where likely access to it can be gained by people moving into the area. Danger notices will be a minimum 30 centimetres in height by 50 centimetres in length with similar wording and colouring as below:



**6.4**

If the range facility is temporary, it must be identified with highly visible demarcation lines or barriers. The firing line is used as a reference point to measure the distance to a target. They are also used to establish a safety boundary behind which shooters must remain whilst shooting is in progress.

**6.5**

The width of firing points must comply with the rules as set down for the appropriate discipline or, in the case of casual recreational shooting, must be a minimum of 1 metre wide. The recommended width is 1.2 metres.

## ***Appendix 3 Annex B: Range Specification Requirements for Handgun, Rim Fire Rifle & Single Action Shooting Ranges***

The following Range Specification Requirements apply in general principle to all Ranges used in Tasmania for Handgun, Rim Fire Rifle and Single Action Shooting where ammunition being used has a muzzle velocity not exceeding 650 metres per second.

These requirements **do not** apply for the following:

- a. Handgun Metallic Silhouette Ranges where Range rules allow the use of ammunition which has a muzzle velocity exceeding 650 metres per second. (See Rifle Range Specification Requirements)
- b. Single Action Ranges where the range rules allow the use of ammunition which has a muzzle velocity exceeding 650 metres per second. (See Rifle Range Specification Requirements)
- c. Air Powered Handguns and Rifles including Paintball Firearms where specific Range Specification Requirements are mentioned elsewhere.

### **1.0 INTRODUCTION**

In accordance with the provisions of Section 151(5) of the *Firearms Act 1996*, the Commissioner of Police must not grant an application to approve a range unless satisfied that the situation, construction, suitability and equipment of the range do not cause a hazard to the users of the range, the general public or any other property.

These Range Specification Requirements detail the minimum requirements for the siting and construction of Firearm Ranges for controlled events. Considering the many and varied locations of ranges e.g. topography, it is considered unreasonable to be prescriptive on all details. However, identifying risks utilising the checklist and applying the Riskex Risk Score Calculator will provide a uniform approach to the inspection procedure, evaluation of collected data and reporting.

An application for range approval must be in an approved form, be accompanied by the prescribed fee and lodged with Firearms Services together with:

- an aerial photograph with the range location marked;
- TasMap (25 000:1 scale) with the range marked;
- a sketch map containing measurements of the width and length of the range and detailed description of the mounds or barriers surrounding the

range or such other mechanisms for containing a projectile fired upon the range (for example, height, number, location, direction and width of mounds);

- details of public liability insurance;
- other information such as fall of shot rights; and
- a letter from the local government authority indicating that the range and any buildings fall within their local planning scheme.

Whilst range approval is granted in accordance with the *Firearms Act 1996*, all operators are to ensure they operate the facility within environmental guidelines, including noise, contamination and storage of substances.

### 1.1 SITING

Inconvenience to the public must be minimised and statutory requirements with regard to planning, zoning, and noise abatement are to be observed.

### 1.2 CONSTRUCTION

Construction of firearm ranges must be such, that the risk of escape outside of the “Range Danger Area” by any projectile is negligible (risk score  $\leq 10$ ).

### 1.3 SUITABLE CONTROL

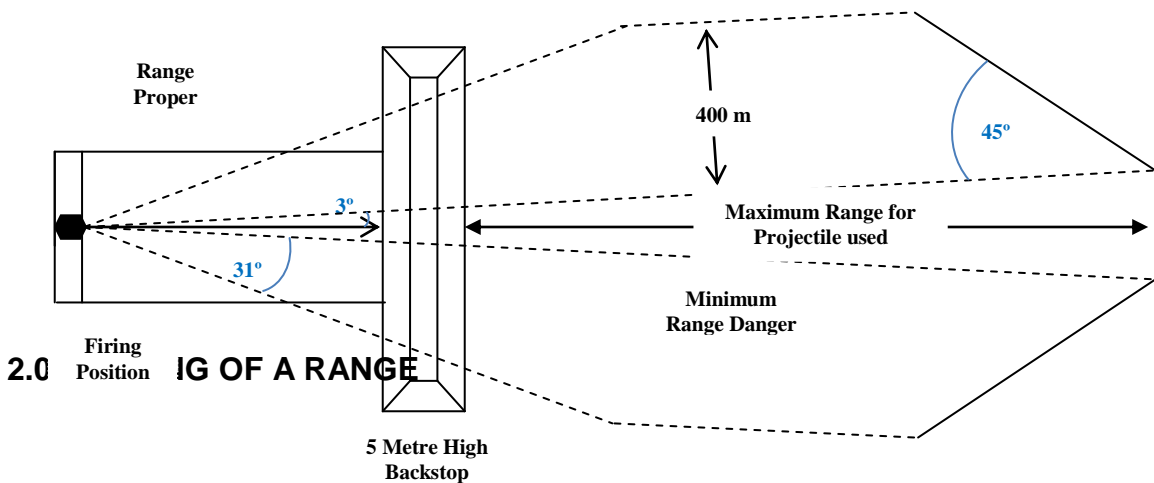
Firearm ranges must be controlled whilst shooting is in progress by personnel who are identifiable to the shooters and who have been adequately instructed on all safety requirements and range conduct for the specific discipline.

### 1.4 RANGE SAFETY TEMPLATE

When in use the “Range Proper” and “Range Danger Area” must be clearly identifiable as such in the “Range Safety Template” and the approved rules or requirements for the type of discipline being undertaken. Range Danger areas are to be calculated using maximum range of projectiles used, the elevation, dispensation and ricochet angles and air danger height (as per attachment I).

### Example of a Range Safety Template

Generated using 5.56 mm ammunition (drawing is not to scale)



## **2.1**

Owing to the distance that modern projectiles may travel, there is to be a projectile containment area, either natural or man made.

## **2.2**

Irrespective of any other consideration, such as location of the range etc, all directed shots must be safely confined in an area that can be effectively controlled.

## **2.3**

Effective containment can be achieved by the use of natural barriers, such as hills, sand dunes, suitable quarry faces etc, or a backstop specifically constructed and located correctly for this purpose. This backstop should be in close proximity to the target area. However, individual considerations may be required.

## **3.0 BACKSTOPS**

### **3.1**

Backstops must be close enough to ensure that the projectile containment area can be observed and controlled at all times from the firing point to the backstop face.

### **3.2**

The backstop must be high enough to stop any projectile fired in a direct line from the muzzle to a target with a "reasonable" margin of safety. It must be of a minimum height of 5 metres and a minimum of 1.5 metres wide at its tallest point. Where a backstop is not used, the full Range Danger Area beyond the target line must be directly controlled by the Range. If not, permission must be obtained from the landowners.

### **3.3**

The backstop must be wide enough to contain any projectile fired with a reasonable margin of safety. The appropriate safety margin 34 degrees at either side of the target area (3 degrees dispensation/human error plus 31 degrees for the projectile-applicable ricochet angle) unless side walls/mounds of sufficient height (minimum 2.2 metres) are provided.

### **3.4**

The backstop must be soft enough to absorb any projectile hitting it with minimal erosion of the backstop itself through continued use. Earth is the natural choice.



## NOTE

When constructing backstops, settlement of the earth must be considered to ensure that the minimum height is obtained. Backstops may be required to be maintained from time to time.

### **4.0 LAYOUT OF FACILITIES**

#### **4.1**

Shooting ranges must be designed so that the muzzles of all firearms, when loaded and ready to fire, are facing in the direction that the safety template allows.

#### **4.2**

Whilst shooting is in progress, access points such as doors and corridors, as well as visitor or spectator facilities behind firing points must be controlled so as to prevent inadvertent or unauthorised access in front of the firing points.

#### **4.3**

Adjacent ranges must be separated by suitable partitions of sufficient width and height, so as to prevent any projectiles from inadvertently escaping into an adjacent range.

### **5.0 SUITABLE PERSONNEL**

#### **5.1**

All ranges must be controlled whilst shooting is in progress by appointed personnel who:

- g. are trained in the safe use of firearms;
- h. have a knowledge of procedures appropriate to that range; and
- i. are suitably qualified in accordance with the specific discipline.

#### **5.2**

Personnel appointed must be responsible to the range management for all shooting activities and for all persons on the range whilst shooting is in progress.

#### **5.3**

The range management is responsible for overseeing the safe conduct of all shooting stands which compose the range and the safety of persons within the range area.

### **6.0 IDENTIFICATION OF A RANGE**

#### **6.1 NOTICE BOARDS**

Notice boards with appropriate warnings and clearly positioned, must be erected at all normal points of entry to a range.

## 6.2

A notice board must be a minimum of 60 centimetres in height by 100 centimetres in length with similar wording and colouring as below:

**WHITE**  
Background

**DANGER**  
**WHEN RED FLAGS ARE FLYING**  
**SHOOTING IS IN PROGRESS**

**“DANGER”**  
must be in **RED**.  
Other wording  
may be in **RED** or  
**BLACK**

## 6.3 DANGER NOTICES

A danger notice must be big enough to be seen at a reasonable distance and permanently fixed around the perimeter of the property or at areas where likely access to the area can be gained by people moving into the area. Danger notices will be a minimum 30 centimetres in height by 50 centimetres in length with similar wording and colouring as below:

**WHITE**  
Background

**DANGER**  
**SHOOTING RANGE**  
**NO ENTRY**

**“DANGER”**  
must be in **RED**.  
Other wording  
may be in **RED** or  
**BLACK**

## 6.4 FLAGS

Flags must be clearly identifiable and bright red in colour. Flags will be a minimum 90 centimetres in height by 120 centimetres in length.

## 6.5

All flags must be flying whilst shooting is in progress. They are lowered only when firing ceases and removed completely when the range is closed to shooting.

## 6.6

Generally, each range area must have a minimum of one flag at the entrance to the “Range Proper” and one at the “Backstop” end, if applicable. Individual considerations for other locations may be required depending on surrounding or adjoining properties.

## **6.7 RED LIGHTS**

When shooting is to be conducted at night, all red flags are to be replaced by a red light source. They must be positioned on the flag pole so that they are visible, in the same manner as for the flags, during daylight use of the range.

## **7.0 MEDICAL**

### **7.1 FIRST AID KITS**

A first aid kit is to be positioned at the firing point during use of the firearms. This first aid kit is to have adequate bandages to be able to effectively deal with an injury caused by a firearm projectile.

### **7.2 EMERGENCY COMMUNICATIONS**

At the firing point, there is to be located the capability to be able to communicate with the Tasmanian Government emergency services, in the event of an injury caused by the use of a firearm.

## ***Appendix 4 Annex B: Range Specification Requirements for Indoor Shooting Ranges***

The following Range Specification Requirements apply in general principle to all Indoor Ranges used in Tasmania for all firearm types and all velocities and ammunition.

### **1.0 INTRODUCTION**

In accordance with the provisions of Section 151(5) of the *Firearms Act 1996*, the Commissioner of Police must not grant an application to approve a range unless satisfied that the situation, construction, suitability and equipment of the range do not cause a hazard to the users of the range, the general public or any other property.

These Range Specification Requirements detail the minimum requirements for the siting and construction of Firearm Ranges for controlled events. Considering the many and varied locations of ranges e.g. topography, it is considered unreasonable to be prescriptive on all details. However, identifying risks utilising the checklist and applying the Riskex Risk Score Calculator will provide a uniform approach to the inspection procedure, evaluation of collected data and reporting.

An application for range approval must be in an approved form, be accompanied by the prescribed fee and lodged with Firearms Services together with:

- an aerial photograph with the range location marked;
- TasMap (25 000:1 scale) with the range marked;
- a sketch map containing measurements of the width and length of the range and detailed description of the mounds or barriers surrounding the range or such other mechanisms for containing a projectile fired upon the range (for example, height, number, location, direction and width of mounds);
- details of public liability insurance;
- other information such as fall of shot rights; and
- a letter from the local government authority indicating that the range and any buildings fall within their local planning scheme.

Whilst range approval is granted in accordance with the *Firearms Act 1996*, all operators are to ensure they operate the facility within environmental guidelines, including noise, contamination and storage of substances.

## **1.1 SITING**

Inconvenience to the public must be minimised and statutory requirements with regard to planning, zoning, and noise abatement are to be observed.

## **1.2 CONSTRUCTION**

Construction of firearm ranges must be such, that the risk of escape outside of the “Range Danger Area” by any projectile is negligible (risk score  $\leq 10$ ).

## **1.3 SUITABLE CONTROL**

Ranges must be controlled whilst shooting is in progress, by personnel who are identifiable to the shooters and who have been adequately instructed on all safety requirements and range conduct for the specific discipline.

## **1.4 RANGE SAFETY TEMPLATE**

When in use the “Range Proper” and “Range Danger Area” must be clearly identifiable as such, as indicated in the “Range Safety Template” and the rules or requirements for the type of discipline being undertaken.

## **2.0 CONSTRUCTION OF AN INDOOR RANGE**

### **2.1**

Owing to the distance that modern projectiles may travel, there is to be a projectile containment area, either natural or man made.

### **2.2**

Effective containment can be achieved by the use of natural barriers, or the use of projectile traps constructed in such a manner as to prevent the projectiles from being a danger to members, users and the general public.

## **2.3 USE OF BUILDINGS**

When constructing or selecting a building for an indoor firing range, space behind the firing line should be provided to allow free movement of shooters to the firing line and allow spectator access. Emergency exits in buildings must not be blocked at any time.

## **3.0 BACKSTOPS**

### **3.1**

Backstops will generally be a wall of the building and protected, if necessary, from damage by pellets that may be not caught by the pellet trap.

### **3.2**

Where necessary, movable safety barriers may be required so as they can be positioned to act as side walls. This allows venues such as halls, sport stadiums, recreational centres, meeting halls, sports grounds, large basements or exhibition halls to be utilised. Protection of all electrical fittings in the range area must also be considered.

### **3.3**

Materials used should be such that will allow the absorption of the energy from the fired pellet.

## **4.0 LAYOUT OF FACILITIES**

### **4.1**

Shooting ranges must be laid out so that the muzzles of all firearms when loaded and ready to fire are facing in the direction that the safety template allows.

### **4.2**

Whilst shooting is in progress access points, such as doors and corridors as well as visitor or spectator facilities behind firing points must be controlled so as to prevent inadvertent or unauthorised access in front of the firing points.

### **4.3**

Adjacent ranges must be separated by suitable partitions of sufficient width and height, so as to prevent any projectiles from inadvertently escaping into an adjacent range.

## **5.0 SUITABLE PERSONNEL**

### **5.1**

All ranges must be controlled whilst shooting is in progress by appointing personnel who:

- j. are trained in the safe use of firearms,
- k. have a knowledge of procedures appropriate to that range, and
- l. are suitably qualified in accordance with the specific discipline.

### **5.2**

Appointed personnel must be responsible to the range management for all shooting activities and for all persons on the Range whilst shooting is in progress.

### **5.3**

The range management is responsible for overseeing the safe conduct of all shooting stands which compose the range and the safety of persons within the range area.

## **6.0 IDENTIFICATION OF A RANGE**

### **6.1 NOTICE BOARDS**

Notice boards with appropriate warnings must be clearly placed and erected at all normal points of entry to a range.

### **6.2 DANGER NOTICES**

A danger notice must be big enough to be seen at a reasonable distance and permanently fixed around the perimeter of the property or at areas where likely access to the area can be gained by people moving into the area.

### **6.3**

If the range facility is temporary, it must be identified with highly visible demarcation lines or barriers. The firing line is used as a reference point to measure the distance to a target. They are also used to establish a safety boundary behind which shooters must remain whilst shooting is in progress.

### **6.4**

The width of firing points must comply with the rules as set down for the appropriate discipline or, in the case of casual recreational shooting, must be a minimum of 1 metre wide. The recommended width is 1.2 metres.

## **7.0 MEDICAL**

### **7.1 FIRST AID KITS**

A first aid kit is to be positioned at the firing point during use of the firearms. This first aid kit is to have adequate bandages to be able to effectively deal with an injury caused by a firearm projectile.

### **7.2 EMERGENCY COMMUNICATIONS**

At the firing point, there is to be located the capability to be able to communicate with the Tasmanian Government emergency services, in the event of an injury caused by the use of a firearm.

## **Appendix 5 Annex B: Range Specification Requirements for Centrefire Rifle Shooting Ranges**

The following Range Specification Requirements apply in general principle to all Indoor/Outdoor Firearm Ranges used in Tasmania for Centrefire Rifle Shooting. Handgun, Rim Fire Rifle and Western Action Long Shooting, where range rules permit the use of ammunition which has a muzzle velocity exceeding 650 metres per second.

### **1.0 INTRODUCTION**

In accordance with the provisions of Section 151(4) of the *Firearms Act 1996*, the Commissioner of Police must not grant an application to approve a range unless satisfied that the situation, construction, suitability and equipment of the range do not cause a hazard to the users of the range, the general public or any other property.

These Range Specification Requirements detail the minimum requirements for the siting and construction of new Firearm Ranges for controlled events. Considering the many and varied locations of ranges e.g. topography, it is considered unreasonable to be prescriptive on all details. However, identifying risks utilising the checklist and applying the Riskex Risk Score Calculator will provide a uniform approach to the inspection procedure, evaluation of collected data and reporting.

An application for range approval must be in an approved form, be accompanied by the prescribed fee and lodged with Firearms Services together with:

- an aerial photograph with the range location marked;
- TasMap (25 000:1 scale) with the range marked;
- a sketch map containing measurements of the width and length of the range and detailed description of the mounds or barriers surrounding the range or such other mechanisms for containing a projectile fired upon the range (for example, height, number, location, direction and width of mounds);
- details of public liability insurance;
- other information such as fall of shot rights; and
- a letter from the local government authority indicating that the range and any buildings fall within their local planning scheme.

Whilst range approval is granted in accordance with the *Firearms Act 1996*, all operators are to ensure they operate the facility within environmental guidelines, including noise, contamination and storage of substances.



## 1.1 SITING

Inconvenience to the public must be minimised and statutory requirements with regard to planning, zoning, and noise abatement are to be observed.

## 1.2 CONSTRUCTION

Construction of firearm ranges must be such, that the risk of escape outside of the “Range Danger Area” by any projectile is negligible.

## 1.3 SUITABLE CONTROL

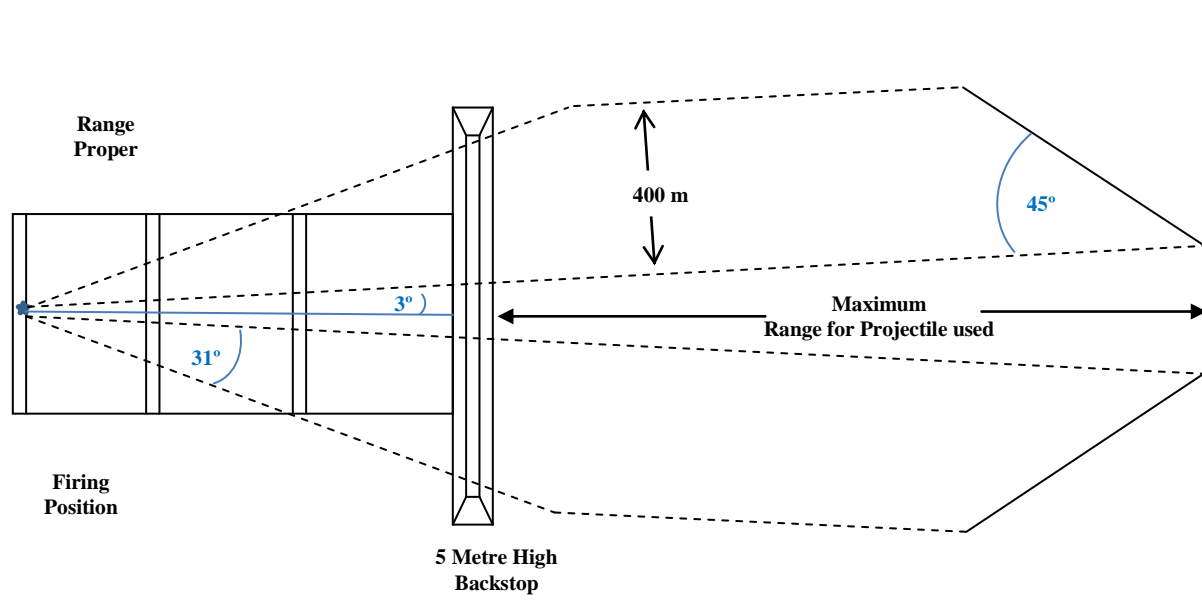
Ranges must be controlled, whilst shooting is in progress, by personnel who are identifiable to the shooters and who have been adequately instructed on all safety requirements and range conduct for the specific discipline.

## 1.4 RANGE SAFETY TEMPLATE

When in use the “Range Proper” and “Range Danger Area” must be clearly identifiable as such in the “Range Safety Template” and the approved rules or requirements for the type of discipline being undertaken. Range Danger areas are to be calculated using maximum range of projectiles used, the elevation, dispensation and ricochet angles and air danger height (as per attachment I).

### Example of a Rifle Range Safety Template

Generated using 5.56 mm ammunition (drawing not to scale)



## **2.0 SITING OF A RANGE**

### **2.1**

Owing to the distance that modern projectiles may travel, there is to be a projectile containment area, either natural or man made.

### **2.2**

Irrespective of any other consideration, such as location of range etc, all "directed" shots must be safely confined to an area that can be effectively controlled.

### **2.3**

Effective containment can be achieved by the use of natural barriers, such as hills, sand dunes, suitable quarry faces etc, or a backstop specifically constructed and located correctly for this purpose. This backstop should be in close proximity to the target area. However, individual considerations may be required.

## **3.0 BACKSTOPS**

### **3.1**

The backstop must be close enough to ensure that the projectile containment area can be observed and controlled at all times from the firing point to the backstop face.

### **3.2**

The backstop must be high enough to stop any projectile fired in a direct line from the muzzle to a target with a "reasonable" margin of safety. It must be of a minimum height of 5 metres and a minimum of 1.5 metres wide at its tallest point. Where a backstop is not used, the full Range Danger Area beyond the target line must be directly controlled by the Range. If not, permission must be obtained from the landowners.

### **3.3**

The backstop must be wide enough to contain any projectile fired with a reasonable margin of safety. The safety margin 34 degrees at either side of the target area (3 degrees dispensation/human error plus 31 degrees for the applicable ricochet angle) unless side walls/mounds of sufficient height (minimum 2.2 metres) are provided.

### **3.4**

The backstop must be soft enough to absorb any projectile hitting it with minimal erosion of the backstop itself through continued use. Earth is the natural choice.

## NOTE

When constructing backstops, settlement of the earth must be considered to ensure that the minimum height of 5 metres is obtained. Backstops may be required to be maintained from time to time. Objects such as bricks, concrete, large stones, rubber tyres, etc should not be included anywhere within the face of the backstop.

### **4.0 LAYOUT OF FACILITIES**

#### **4.1**

Shooting ranges must be designed so that the muzzles of all firearms, when loaded and ready to fire, are facing in the direction that the safety template permits.

#### **4.2**

Whilst shooting is in progress, access points such as gates, access roads, tracks, etc, as well as visitor or spectator facilities behind firing points must be controlled so as to prevent inadvertent or unauthorised access in front of the firing points.

#### **4.3**

Adjacent ranges must be separated by suitable partitions of sufficient width and height (2.2 metres), so as to prevent any projectiles from inadvertently escaping into an adjacent range.

### **5.0 SUITABLE PERSONNEL**

#### **5.1**

Whilst shooting is in progress, all ranges must be controlled by appointed personnel who:

- m. are trained in the safe use of firearms;
- n. have a knowledge of procedures appropriate to that range; and
- o. are suitably qualified in accordance with the specific discipline.

#### **5.2**

Personnel appointed must be responsible to the range management for all shooting activities and for all persons on the range whilst shooting is in progress.

#### **5.3**

The range management is responsible for overseeing the safe conduct of all shooting stands which compose the range and the safety of persons within the range area.

## 6. IDENTIFICATION OF A RANGE

### 6.1 NOTICE BOARDS

A notice board with appropriate warnings must be clearly placed and must be erected at all normal points of entry to a range.

### 6.2 DANGER NOTICES

The notice board must be a minimum of 60 centimetres in height by 100 centimetres in length with similar wording and colouring as below:

White  
Background



“Danger”  
MUST be **RED**  
other wording  
may be **RED** or  
**Black**

### 6.3

A danger notice must be big enough to be seen at a reasonable distance and permanently fixed around the perimeter of the property or at areas where likely access to it can be gained by people moving into the area. Danger notices will be a minimum 30 centimetres in height by 50 centimetres in length with similar wording and colouring as below:

White  
Background



“Danger”  
MUST be **RED**  
other wording  
may be **RED** or  
**Black**

### 6.4 FLAGS

Flags must be clearly identifiable and bright red in colour. Flags will be a minimum 90 centimetres in height by 120 centimetres in length.

### 6.5

All flags must be flying whilst shooting is in progress. They are lowered when firing ceases and removed completely when the range is closed to shooting.

### 6.6

Generally, each range area must have a minimum of one flag at the entrance to the “Range Proper” and one at the “Backstop” end, if applicable. Individual considerations for other locations may be required depending on surrounding or adjoining properties.

## **6.7 RED LIGHTS**

When shooting is in progress at night time, all flags must be replaced by red lights. They must be hung on the flag pole so that they are visible, in the same manner as for the flags, during daylight use of the range.

## **7.0 MEDICAL**

### **7.1 FIRST AID KITS**

A first aid kit is to be positioned at the firing point during use of the firearms. This first aid kit is to have adequate bandages to be able to effectively deal with an injury caused by a firearm projectile.

### **7.2 EMERGENCY COMMUNICATIONS**

At the firing point, there is to be located the capability to be able to communicate with the Tasmanian Government emergency services, in the event of an injury caused by the use of a firearm.

## **Appendix 6 Annex B: Range Specification Requirements for Shotgun Shooting Ranges**

The following Range Specification Requirements apply in general principle to all Ranges used in Tasmania for Shotgun Shooting. Of note, Shotgun Shooting Ranges in Tasmania will only be approved for use with ammunition with a maximum legal pellet size of 6 or smaller. Ammunition with a pellet size larger than 6, is not to be used on Shotgun Shooting Ranges in Tasmania.

These Range Specification Requirements for Shotgun Shooting Ranges are the minimum standard for the safe operation of such ranges. It is acknowledged that in many instances, the National and International Sporting Group Rules for the varied disciplines of Shotgun Ranges exceed these minimum safety standards. During the conduct of these National and International Sporting Group shoots in Tasmania, the higher of the two safety standards is to be applied to the relevant shoot.

### **1.0 INTRODUCTION**

In accordance with the provisions of Section 151(4) of the *Firearms Act 1996*, the Commissioner of Police must not grant an application to approve a range unless satisfied that the situation, construction, suitability and equipment of the range do not cause a hazard to the users of the range, the general public or any other property.

These Range Specification Requirements detail the minimum requirements for the siting and construction of Firearm Ranges for controlled events. Considering the many and varied locations of ranges e.g. topography, it is considered unreasonable to be prescriptive on all details. However, identifying risks utilising the checklist and applying the Riskex Risk Score Calculator will provide a uniform approach to the inspection procedure, evaluation of collected data and reporting.

An application for range approval must be in an approved form, be accompanied by the prescribed fee and lodged with Firearms Services together with:

- an aerial photograph with the range location marked;
- TasMap (25 000:1 scale) with the range marked;
- a sketch map containing measurements of the:
  - range proper and range danger area;
  - the disciplines to be fired on the range;
  - the location of the permanent trap housing and range facilities; and
  - if applicable, the descriptions of the mounds or barriers surrounding the range or such other mechanisms for containing a projectile fired upon the range (for example, height, number, location, direction and width of mounds).

- details of public liability insurance;
- other information such as fall of shot rights; and
- a letter from the local government authority indicating that the range and any buildings fall within their local planning scheme.

Whilst range approval is granted in accordance with the *Firearms Act 1996*, all operators are to ensure they operate the facility within environmental guidelines, including noise, contamination and storage of substances.

### **1.1 SITING**

Inconvenience to the public must be minimised and statutory requirements with regard to planning, zoning, and noise abatement are to be observed.

### **1.2 CONSTRUCTION**

Construction of firearm ranges must be such, that the risk of escape outside of the “Range Danger Area” by any projectile is negligible (risk score  $\leq 10$ ).

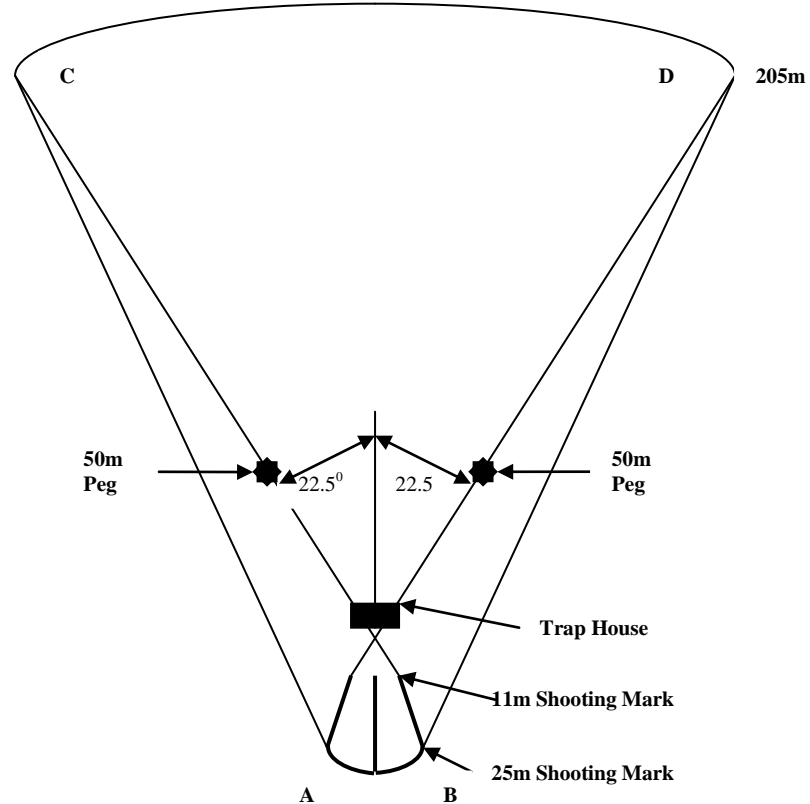
### **1.3 SUITABLE CONTROL**

Shotgun ranges must be controlled, whilst shooting is in progress, by personnel who are identifiable to the shooters and who have been adequately instructed on all safety requirements and range conduct for the specific discipline.

### **1.4 RANGE SAFETY TEMPLATE**

When in use, the “Range Proper” and “Range Danger Area” must be clearly identifiable as such, as indicated in the approved rules or guidelines for the type of discipline being undertaken. The “Range Proper” contains the entire area that is under the control of the range management and includes the “Range Danger Area” and ‘safe areas’ making up the range facility. The “Range Danger Area” is the area in which a projectile will be fired and where a projectile may land dependent on the shot size employed. The “Range Danger Area” commences from an area designated as the firing point or line. An example of a “Range Danger Area” is listed at diagram 1.

## Example of Shotgun Range Safety Template



**Diagram 1: Example DTL Layout for No 9 Shot**

- A** Shooter No 1 - 25m mark
- B** Shooter No 5 - 25m mark
- C** 205m from shooters 1 & 5 - 11m mark. Line extended through the 50m Peg on the opposite side of the centre line.

**In this example, the Range Danger Area is bounded by the lines between points A – C & B – D. The arcs of fire are A – C & B – D.**

It is noted that there are difficulties when requesting approval for a shotgun range, to formulate written range templates for each individual shooting stand that could exist in the “Range Proper”. This is due to the large number of individual shooting stands and the variations to the size of the “Range Danger area” dependent on the type of shot size fired.

For range complexes that include numerous shotgun shooting stands, an Area Range Safety Template is acceptable. The Area Range Safety Template will show in ‘plan’ view a map of the total Range Proper, within which area(s) should be highlighted showing the potential Range Danger Area(s). The critical requirements are:



1. All shooting must occur from a clearly identifiable position or “Shooting Stand”.
2. Shooting positions or shooting stands can be located anywhere within the Range Danger Area or on the boundaries of Range Danger areas.
3. All projectiles must be fired from Shooting Stands only and all projectiles must land within the Range Danger Area.
4. The individual controlling the shooting stand is responsible for:
  - a. Ensuring that all projectiles must be fired from the Shooting Stands only and must land within the Range Danger Area; and
  - b. The parameters of the Shotgun Safety Template relevant to the shot size used are enforced for each practice.

## **2.0 SITING OF A RANGE**

### **2.1**

Owing to the distance that modern projectiles may travel, all “directed” shots must be safely confined in an area that can be effectively controlled.

## **3.0 BACKSTOP**

### **3.1**

As Shotgun Shooting Ranges in Tasmania are only approved for use with ammunition with a maximum legal pellet size of 6 or smaller, there is therefore no requirement for a backstop to be located at a range.

## **4.0 LAYOUT OF FACILITIES**

All shotgun ranges must consider the maximum safe fall out distance for the shot size being used. This must be reflected in the “Range Danger Area” for the specific events to be shot and must be in accordance with the distances shown in the Maximum Range Chart referred to in the Annexure marked “A”.

### **4.1**

Shooting activities must be laid out so that the muzzles of all firearms, when loaded and ready to fire are facing in the direction that the safety template allows into the “Range Danger Areas”. All projectiles must be fired and land within the Range Danger Area

## **4.2**

Whilst shooting is in progress, storage sheds, clubrooms, car parking areas and visitor or spectator facilities behind firing points must be controlled so as to prevent inadvertent or unauthorised access in front of the firing points.

## **4.3**

Adjacent ranges within the "Range Proper" must be separated by sufficient safety distance or suitable partitions of sufficient width and height, so as to prevent any projectiles from inadvertently escaping and causing harm to firers at another shooting stand.

## **5.0 RANGE EQUIPMENT & USE**

### **5.1**

All traps and other associated equipment or facilities must be safe, well made and properly maintained. Protection rings or barriers must be fitted to all manual traps, in such a manner that operating personnel are both vertically and horizontally protected from the sweep of the trap arm. Automatic traps do not require protection rings as they must be isolated and de-energised at all times, prior to any approach or contact being made with them.

### **5.2**

Clear and adequate operational and safety instruction must be provided for all traps, both manual and automatic, where any casual operators are required to control, load and correct any malfunction.

### **5.3**

All traps must be capable of throwing consistent targets and must be set so they can be operated with safety.

### **5.4**

All manual trap positions must be adequately protected from directed shots and shot fall and be provided with a red warning flag. Trap operators must be instructed in the safe operation of the equipment and range procedures and must wear ear and eye protection whilst shooting is in progress.

## **6.0 SUITABLE PERSONNEL**

### **6.1**

All individual shooting stands must be controlled whilst shooting is in progress by appointing personnel who:

- a. Are trained in the safe use of firearms;
- b. Have a knowledge of procedures appropriate to that shooting stand; and
- c. Are suitably qualified in accordance with the specific discipline.

## 6.2

Personnel appointed must be responsible to the range management for all shooting activities and for all persons at the shooting stand whilst shooting is in progress.

## 6.3

The range management is responsible for overseeing the safe conduct of all shooting stands which compose the range and the safety of persons within the range area.

## 7.0 IDENTIFICATION OF A RANGE

### 7.1 NOTICE BOARDS

Notice boards with appropriate warnings must be clearly placed and must be erected at all normal or regularly used points of entry to a range.

### 7.2

A notice board must be a minimum of 60 centimetres in height by 100 centimetres in length with similar wording and colouring as below:

White  
Background

**DANGER**  
**WHEN RED FLAGS ARE FLYING**  
**SHOOTING IS IN PROGRESS**

Danger MUST be  
in **RED**. Other  
wording may be  
**RED** or **BLACK**

### 7.3 DANGER NOTICES

A danger notice must be big enough to be seen at a reasonable distance and permanently fixed around the perimeter of the property or at areas where likely access to it can be gained by people moving into the area. Danger notices will be a minimum 30 centimetres in height by 50 centimetres in length with similar wording and colouring as below:

White  
Background

**DANGER**  
**SHOOTING RANGE**  
**NO ENTRY**

Danger MUST be  
in **RED**. Other  
wording may be  
**RED** or **BLACK**

### 7.4 FLAGS

Flags must be clearly identifiable and bright red in colour. Flags will be a minimum 90 centimetres in height by 120 centimetres in length.

## 7.5

All flags must be flying whilst shooting is in progress. They are lowered when firing ceases and removed completely when the range is closed to shooting.

## 7.6

Generally, each shotgun range area must have a minimum of one flag at the entrance to the "Range Proper". Other key perimeter entry points if present along the perimeter must also be flagged and will be dependent on the surrounding or adjoining properties and the likely movement of members of the public into the "Range Proper".

## 7.7 RED LIGHTS

When shooting is in progress at night time all flags must be replaced by red lights. They must be hung on the flag pole so that they are visible in the same manner as for the flags during daylight use of the range.

## 8.0 MEDICAL

### 8.1 FIRST AID KITS

A first aid kit is to be positioned at the range during use of the firearms. This first aid kit is to have adequate bandages to be able to effectively deal with an injury caused by a firearm projectile.

### 8.2 EMERGENCY COMMUNICATIONS

At the range, there is to be located the capability to be able to communicate with the Tasmanian Government emergency services, in the event of an injury caused by the use of a firearm.

## ANNEXURE "A"

<b>Commercial Shot Size</b>	<b>Pellet Weight (grs)</b>	<b>Muzzle Velocity (mps)</b>	<b>Max. Range at sea level (Metres)</b>	<b>Suitable Range Area Max. Range +20% Safety Factor</b>
No.9 shot	0.75	410	220	244
No.8 shot	1.06	410	236	283.2
No.7 ½ shot	1.25	410	243	291.6
No.6 shot	1.94	410	269	322.8

### NOTE

The maximum range figures used in the above chart have been calculated from NRA reference book figures provided for maximum range for various size shot.

They are based on the nominal velocities of common loads fired at sea level (Ref: NRA Firearms Fact Book, Edition Three). Range Managers must be aware that the maximum range of shot pellets can be affected greatly by tail wind. Higher elevations also increase maximum range.

Where suitable, a 15 – 20 percent safety factor is recommended in addition to the maximum range. For example, the maximum range for No. 6 shot is 250 metres, with a 20% safety factor, the range would be 300 metres. Individual considerations for ranges may be required depending on surrounding or adjoining properties.

## **Appendix 7 Annex B: Range Specification Requirements for Crossbow Ranges**

The following guidelines apply to all outdoor crossbow ranges used in Tasmania for outdoor target and public open air crossbow events.

### **ACKNOWLEDGEMENT**

These guidelines have been adapted from the results of ricochet characteristic testing conducted by the Queensland Weapons Licensing Branch and the New South Wales Firearms Registry in September, 2006 and from the Archery Australia Shooting Rules (effective 1 September, 2007).

### **1.0 INTRODUCTION**

In accordance with the provisions of Section 15D(2) of the *Police Offences Act 1935*, a person may apply to the Commissioner of Police for a permit to use, carry or have possession of a crossbow. Section 15D(4) states that the Commissioner may grant an application subject to any conditions the Commissioner considers appropriate.

One of the legitimate reasons for which the Commissioner may grant an application for a crossbow is for a permit for target shooting. The requirement for an application relating to target shooting is that the applicant must satisfy the Commissioner as to their *bona fides* as a target shooter. Proof of membership of an approved club or society whose members are involved in crossbow target shooting on an approved range is required.

These guidelines detail the minimum requirements for the siting and construction of crossbow ranges for controlled (outdoor) target shooting events.

An application for range approval must be in an approved form, be accompanied by the prescribed fee and lodged with the Commissioner together with:

- an aerial photograph with the range location marked;
- TasMap (1:25 000 scale) with the range marked;
- a sketch map containing measurements of the width and length of the range and detailed description of the mounds or barriers surrounding the range or such other mechanisms for containing a projectile fired upon the range (for example, height, number, location, direction and width of mounds);
- details of public liability insurance; and
- a letter from the local government authority indicating that the range and any buildings fall within their local planning scheme.

Whilst range approval is granted by the Commissioner of Police, all operators are to ensure they operate the facility within environmental guidelines.

### 1.1 SITING

Inconvenience to the public must be minimised and statutory requirements with regard to planning, zoning, and noise abatement are to be observed.

### 1.2 CONSTRUCTION

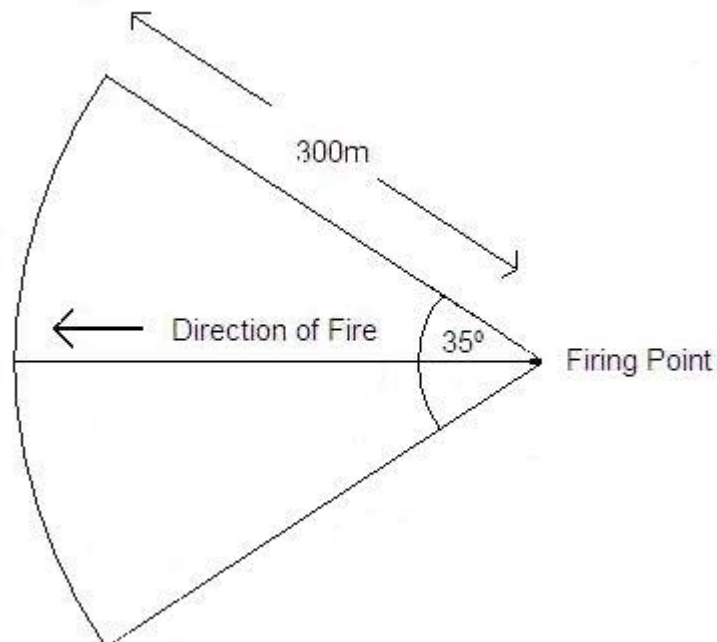
Construction of crossbow ranges must be such that the risk of escape outside of the “Range Danger Area” by any projectile is negligible.

### 1.3 SUITABLE CONTROL

Crossbow ranges must be controlled whilst shooting is in progress by personnel who are identifiable to the shooters and who have been adequately instructed on all safety requirements and range conduct for the specific discipline.

### 1.4 RANGE SAFETY TEMPLATE

Example of a Crossbow Range Safety Template



Ranges that are found to have a range surface and danger area of lush, thick grass may be eligible to have their danger area reduced. Likewise, ranges that are found to have a surface and danger area that is hard and smooth may have to have their range danger area extended. Such decisions will be made by the Tasmania Police Range Inspector, giving consideration to the findings of ricochet characteristics testing.

## **2.0 SITING OF A RANGE**

### **2.1**

Irrespective of any other consideration, such as location of range, all “directed” shots must be safely confined in an area that can be effectively controlled.

### **2.2**

Effective containment can be achieved by the use of natural barriers, such as hills, sand dunes, suitable quarry faces etc, or a backstop specifically constructed and located correctly for this purpose. This backstop should be in close proximity to the target area. However, individual considerations may be required.

## **3.0 BACKSTOPS**

### **3.1**

Backstops must be close enough to ensure that the projectile containment area can be observed and controlled at all times from the firing point to the backstop face.

### **3.2**

The backstop must be high enough to stop any projectile fired in a direct line from the crossbow to a target with a "reasonable" margin of safety. A minimum of 4 metres in height is sufficient unless the land beyond the backstop is likely to have human access when firing is in progress.

### **3.3**

The backstop must be wide enough to contain any projectile fired with a reasonable margin of safety of 35 degrees at either side of the target area, unless side wall/mounds are provided. Side wall/mounds are defined as extensions to the backstop at an angle which achieves the same 35 degrees angle of safety, or some other construction that achieves an equal safety margin.

### **3.4**

The backstop must be soft enough to absorb any projectile hitting it, with minimal erosion of the backstop itself through continued use. Earth is the natural choice.

## **4.0 LAYOUT OF FACILITIES**

### **4.1**

Ranges must be laid out so that all crossbows when loaded and ready to fire are facing in the direction that the safety template allows.

### **4.2**

A butt for the testing of bows with trigger failures must be set up at a short distance (10-20 metres) within a safe area where it can be utilised at any time.



### **4.3**

Adjacent ranges within the safety template must be separated by suitable partitions of sufficient width and height, so as to prevent any projectiles from inadvertently escaping into an adjacent range.

### **4.4**

Whilst shooting is in progress, storage sheds, clubrooms, car parking areas and visitor or spectator facilities behind firing points must be controlled so as to prevent inadvertent or unauthorised access in front of the firing points.

## **5.0 TARGET BUTTS**

### **5.1**

The target butts must be a minimum of 85cm x 85 cm or at least 85cm in diameter (for one target) and 128cm x 85cm or at least 128cm in diameter (for two targets). The target butts are to be made from suitable material such that arrows will not ordinarily rebound from, pass through or be damaged by it.

The target butt must be supported on a suitable framework so that its centre is 130cm (give or take 5cm) above the average surrounding ground level. The target butt and framework must be securely anchored to the ground.

The face of the target butt must be inclined backwards such that the angle from vertical is approximately 10 degrees with all targets appearing uniform.

## **6.0 SUITABLE PERSONNEL**

### **6.1**

All ranges must be controlled whilst shooting is in progress by appointing personnel who:

- a. are trained in the safe use of crossbows;
- b. have a knowledge of procedures appropriate to that range; and
- c. are suitably qualified in accordance with the specific discipline.

### **6.2**

Personnel appointed must be responsible to the range management for all shooting activities and for all persons on the range whilst shooting is in progress.

## **7.0 IDENTIFICATION OF A RANGE**

### **7.1 NOTICE BOARDS**

Notice boards with appropriate warnings must be clearly placed and must be erected at all normal points of entry to a range.

## 7.2

A notice board must be a minimum of 60 centimetres in depth by 100 centimetres in length with similar wording and colouring as below:

White  
Background

**DANGER**  
**WHEN RED FLAGS ARE FLYING**  
**SHOOTING IS IN PROGRESS**

Danger MUST be  
in **RED**. Other  
wording may be  
**RED** or **BLACK**

## 7.3 DANGER NOTICES

A danger notice must be big enough to be seen at a reasonable distance and permanently fixed around the perimeter of the property or at areas where likely access to it can be gained by people moving into the area. Danger notices will be a minimum 30 centimetres in height by 50 centimetres in length with similar wording and colouring as below:

White  
Background

**DANGER**  
**CROSSBOW RANGE**  
**NO ENTRY**

Danger MUST be  
in **RED**. Other  
wording may be  
**RED** or **BLACK**

## 7.4 FLAGS

Flags must be clearly identifiable and bright red in colour. Flags will be a minimum 90 centimetres in height by 120 centimetres in length.

## 7.5

All flags must be flying whilst shooting is in progress. They are lowered when firing ceases and removed completely when the range is closed to shooting.

## 7.6

Generally, each crossbow range area must have a minimum of one flag at the entrance to the "Range Proper" and one at the "Backstop" end, if applicable. Individual considerations for other locations may be required depending on surrounding or adjoining properties.

## 7.7 RED LIGHTS

When shooting is in progress at night time all flags must be replaced by red lights. They must be hung on the flag pole so that they are visible in the same manner as for the flags during daylight use of the range.

## **8.0 MEDICAL**

### **8.1 FIRST AID KITS**

A first aid kit is to be positioned at the firing point during use of the crossbows. This first aid kit is to have adequate bandages to be able to effectively deal with an injury caused by a crossbow projectile.

### **8.2 EMERGENCY COMMUNICATIONS**

At the firing point, there is to be located the capability to be able to communicate with the Tasmanian Government emergency services, in the event of an injury caused by the use of a crossbow.

## **Appendix 8 Annex B: Range Specification Requirements for Shooting Galleries**

The following guidelines apply to all shooting galleries operated in Tasmania. No shooting gallery is to be operated unless it has been inspected and approved by the Commissioner of Police or the delegate.

### **1.0 Legislative Requirements**

In accordance with Section 153(a) of the *Firearms Act 1996*, the following conditions are imposed on the operation of all shooting galleries in Tasmania:

- (i) Once inspected and approved, the shooting gallery and its equipment are not to be altered without the consent of the Commissioner of Police or the delegate;
- (ii) Only firearms approved by the Commissioner of Police or the delegate for the purpose specified are to be used in connection with the shooting gallery.

Pursuant to Section 153(c) of the *Firearms Act 1996*, the following conditions are imposed on all shooting galleries in Tasmania:

- (i) Only hollow section air rifle pellets capable of collapsing on impact are to be used in the air rifles used with the shooting gallery.
- (ii) All air rifles used in the shooting gallery are to be secured by solid link chains when in use so as to restrict their movement, theft and prevent them from being pointed at members of the public.
- (iii) The approved holder of the shooting gallery permit is to ensure that adequate supervision is to be maintained at all times during the operation of the shooting gallery.
- (iv) If the approved holder or his/her representative of the shooting gallery knows or has reasonable cause to believe that a person is under the influence of alcohol or any other drug, or that a person's appearance or behaviour provides the holder or representative with reasonable cause to believe that the person is incapable of exercising responsible control over a firearm, the holder or representative must not allow that person to handle or use the firearms in possession and use of the shooting gallery.

## **2.0 Administrative Requirements**

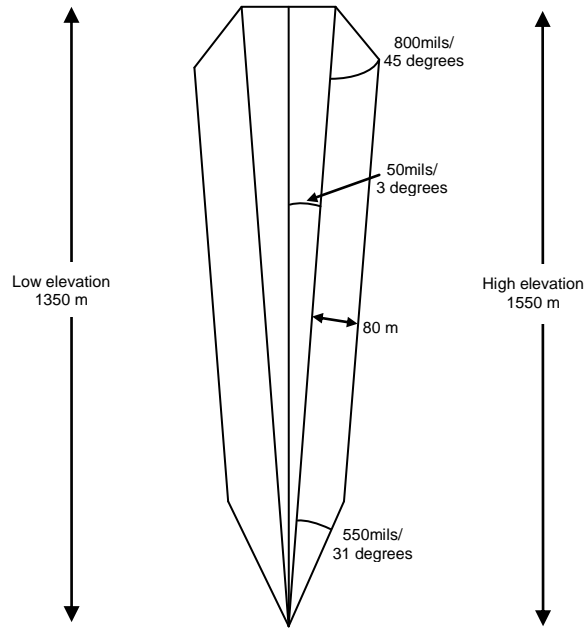
The period of approval is to not exceed three years from the date the approval is granted. The approval may be revoked at any time by notice, in writing, served on the approved holder of the shooting gallery permit.

**Appendix 9 – Range Danger Area Calculation: Ammunition planning factors**

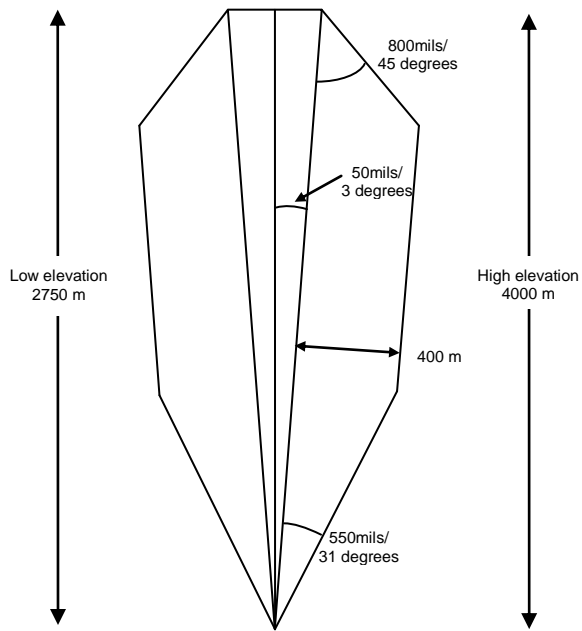
Round/Projectile	Maximum Ranges (m)		Angles mls/degrees				Ricochet Distance (m)	Air Danger Height (m)
	Low Elevation Fire	High Elevation Fire	Dispersion Human Error Angle (mls/degrees)	Ricochet Angle (mls/degrees)	QE above which Ricochet is not expected			
.22 6.5 mm	1300	1550	50 mls/ 3 degrees	550 mls/ 31 degrees	220 mls/ 12 degrees	80	500	
7.62 mm .303 .30 5.56 mm	2750	4000	50 mls/ 3 degrees	550 mls/ 31 degrees	200 mls/ 11 degrees	400	1000	
9 mm .45 inch	1500	1825	50 mls/ 3 degrees	550 mls/ 31 degrees	220 mls/ 12 degrees	200	900	
.50 Target Rifle	4000	6600	59 mls/ 4 degrees	530 mls/ 30 degrees	270 mls/ 15 degrees	500	530	
12 gauge Solid Shot	680	-	80 mls/5 degrees	800 mls/ 45 deg.	-	360	1800	
SG	580	-	80 msl/ 5 degrees	200 mls/ 11 deg.	-	-	1525	
No. 6	280	-	80 mls/ 5 degrees	320 mls/ 18 deg.	-	-	750	

**Appendix 10 –  
Examples of ammunition range danger area templates**

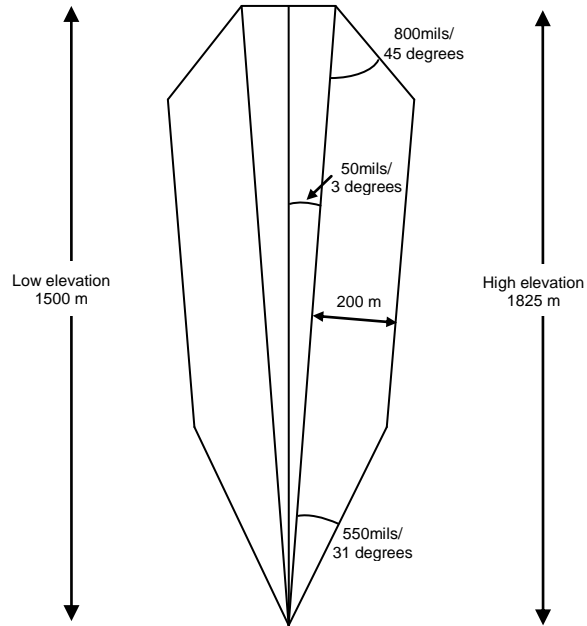
*.22 inch and 6.5 mm Template*



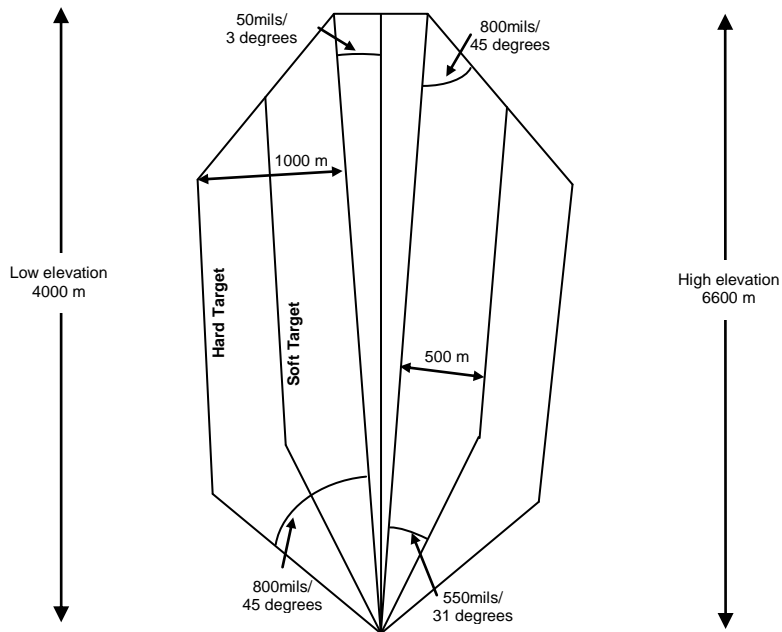
*7.62 mm / .303 inch / 5.56 mm Template*



*9 mm / .45 inch Template*

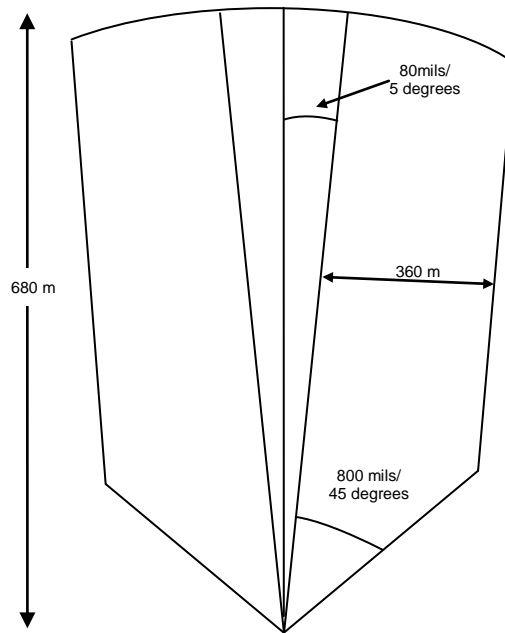


*.50 Calibre Target Rifle Template*





12 Gauge, Solid Shot Template



12 Gauge, Pelleted Ammunition Template

