



Royal Canadian Mounted Police

Inspection Report on Firing Ranges

D Division

Final Report: January 8, 2013

Prepared for Real Property Program, Assets Management & Programs
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Inspections completed from July 24-27, 2012

Winnipeg, Manitoba

The firing range was constructed in 1979 and is located in the basement of the D Division HQ building. The range is currently used by D Division ERT, Winnipeg Police and other government departments with an average of 200,000 rounds shot annually. During the time of construction the range was designed for the course of fire from a .38 revolver. The range is equipped with light baffles that consist of 3 mm thick metal.

In 1996 the RCMP adopted the more powerful 9 mm semi-automatic handgun, changing the course of fire. To date the range has not been upgraded to meet the new safety requirements that were imposed in 1996 and no analysis has been completed to verify if the range can withstand the dramatic change in the course of fire.

Summary

Overall the range is in poor condition and is not equipped with the required facilities (ammo storage, a proper corridor, cleaning area, etc.). The ceiling baffles are to be replaced immediately with 8mm thick 1T100 armour steel plates. The current ceiling baffles do not meet the regulation standards and have excessive damage.

It is also recommended that the following be completed:

- A range operating instruction manual
- A range maintenance instruction manual
- A cleaning schedule in order to meet environmental regulations
- Testing of the ventilation system and an upgrade if required
- Inspection of the existing steel plated backstop and an upgrade if required
- Clean, flush and upgrade the existing plugged floor drains
- Upgrade the existing acoustic protection that is within the range and the combined room
- Install a second door to the range in order to improve the negative air pressure within the range.

Thompson, Manitoba

The firing range is located in the basement of the RCMP detachment. The range was built in the late 1980s and has lacked regular maintenance which is reflective of the condition of the range. The facility also lacks the appropriate space required for range operation. The ventilation system has not been properly maintained and as a result it is currently malfunctioning. The exhaust ventilation system is decommissioned, creating a positive air pressure inside the range. As a result of the improper ventilation system the metal, including the galvanized air ducts within the range are rusting.

In addition, the range is not equipped with the proper acoustic protection and the lighting is not suitable for training purposes.

The following must be completed:

- The ventilation system must be upgraded to meet the current standards. This includes the addition of a new intake and exhaust filtration system, replacement of the exhaust fan, balancing the system, etc.
- The 4mm thick steel baffles with ¾" thick plywood and acoustic boards must be redesigned to protect all of the lights, sprinkler system and piping within the firing range.
- The current steel plates are to be replaced with 8mm thick 1T100 armour steel and all bolts, nuts and 90 degree edges found on steel within the range are to be bevelled to the appropriate angles for ballistic use.
- The moveable overhead target holders must be either refurbished or replaced with a new system.
- The lights must be redesigned and replaced by a new lighting system.
- The acoustic protection within the range must be upgraded by adding additional soft material on at least the first 8 meters of the side walls.
- The single-pane glass on the back wall must be replaced by double-pane glass.
- The entrance to the range must be upgraded by adding a second door. This will improve the acoustic protection and enhance the control of the negative air pressure within the range.
- The Venetian steel plated back stop must be either completely refurbished or replaced.
- Develop maintenance and cleaning schedules for the range.

Dauphin, Manitoba

The firing range was constructed in 1997 and is located in the basement of the Dauphin detachment. Overall the range is in good condition and is well maintained minus the ventilation system which indicated positive air pressure within the range. The overhead deflectors/baffles are not constructed with 8mm thick 1T100 armour steel plates. However, they are well constructed with a combination of 4 and 5mm thick steel in combination with 5/8" (3/4") thick plywood. The design of the baffles reduces the risk of ricochet.

The range is lacking the required operational space and only has one combined room and storage for ammunition. The range is also very loud during firing and the acoustics need to be upgraded.

Summary

It is recommended that the ventilation system be thoroughly inspected to avoid positive air pressure within the range. If found faulty the system is to be refurbished or replaced with a new system that meets the current standards. The system must be appropriately balanced and a maintenance and system balancing schedule is to be put in place.

The following must be completed:

- The vertical deflector on the right side near the back stop must be upgraded in order to protect the entire door.
- All bolts, nuts and 90 degree edges found on steel within the range are to be bevelled to the appropriate angles for ballistic use.
- The anchored bolts supporting the horizontal protective steel structure are to be bevelled in order to avoid any potential ricochet risk.
- The lighting system must be upgraded. The current lighting system consists of halogen lights which are not suitable for firing ranges.
- Upgrade the acoustic protection within the range and the combined room. The current noise level during firing is too high.
- The entrance to the range must be upgraded by adding a second door. This will improve the acoustic protection and enhance the control of the negative air pressure within the range.



Inspection of Indoor Firing Ranges Check List.

Range Region and/or Division: D Division

Range Location and Address : 1091 Portage Ave., Winnipeg, Manitoba

1. Indoor Firing Range

Range Operating instructions c/w H&S	Not in place, verbal only
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Operation :

Shooting Length and No. of Lanes :	25 meters, six (6) lines
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Hours of Operation :	24/7, up to 200,000 rounds per year
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Weaponry used :	9 mm & .40 cal. hand gun, MP5, 12 gage shotgun
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Used by :	RCMP, ERT, DNR, CBSA, Winnipeg police, Wild Life
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Facility/Functional :

Waiting Area :	In combined room
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Corridor Area :	In combined room
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Gun Cleaning Area :	Across the Hall
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Cleaning Area :	Across the Hall
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Ammo Storage Area :	In combined room
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-Washrooms :	Yes
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Other/Special :	One room for all of the above functions
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Facility/ballistic :

Floors :	Concrete with Vinyl Tiles
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Walls :	Concrete blocks
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Ceiling :	Concrete protected by damaged original 3mm baffles
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Lighting :	Partially protected in need of improvement
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Fire Alarms & Sprinklers :	FA in place / sprinkler system in place
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Target Holders/Mechanisms :	Older overhead mechanical with continuous problems
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Bullet Traps :	Original (1979) in fair condition
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Other/Special :	The ceiling baffles/deflectors are so damaged that are high risk for the shooting training personnel
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Facility/Environmental

Ventilation System :	Separate from the building
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Intake/Exhaust :	100% fresh air in / exhaust filtered
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Filtration System :	With Hepa filters but not monitored at all
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Bullet Traps Design :	Old outdated design
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Lead Contamination & disposal :	On as required schedule
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Acoustic:	Insufficient acoustic protection. The acoustics must
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Other/Special :	be upgraded.
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Other/Special :	
Notes :	
	
Inspection of Indoor Firing Ranges Check List.	
Range Region and/or Division: D Division	
Range Location and Address : 122 Selkirk Ave., Thompson, Manitoba	
1. Indoor Firing Range	
Range Operating instructions c/w H&S	Not in place
Operation :	
Shooting Length and No. of Lanes :	25 meters five(5) lines
Hours of Operation :	7:00am to 11:00pm or as required
Weaponry used :	9 mm hand gun, MP5, 12gage shotgun
Used by :	RCMP, Parks Canada & Natural Resources
Facility/Functional :	
Waiting Area :	In Combined Room
Corridor Area :	In Combined Room
Gun Cleaning Area :	In Combined Room
Cleaning Area :	In Combined Room
Ammo Storage Area :	Yes, in separate room
Washrooms :	Outside of Firing Range
Other/Special :	Access to the range is controlled and recorded
Facility/ballistic :	
Floors :	Concrete – in fair condition
Walls :	Concrete in fair condition
Ceiling :	Concrete protected by baffles – 4mm thick steel plates
Lighting :	Florescent partially protected
Fire Alarms & Sprinklers :	In place / Sprinkler heads partially protected
Target Holders/Mechanisms :	Older overhead mechanical in need of replacement
Bullet Traps :	Older in fair condition
Other/Special :	Sanitary pipes under the ceiling are not protected
Facility/Environmental	
Ventilation System :	Questionable negative air pressure in the Range
Intake/Exhaust :	100% fresh air / exhaust directly to outside
Filtration System :	No Existing Filtration System
Bullet Traps Design :	Older Venetian steel back stop in fair condition
Lead Contamination & disposal :	No disposal done in last two years,
Acoustic:	Range is too loud, needs upgrade
Other/Special :	Bldg. owned and maintained by the City excluding Maintenance of Bullet Trap Lead disposal
Other/Special :	

Notes :	This Firing Range is in poor overall condition
	
Inspection of Indoor Firing Ranges Check List.	
Range Region and/or Division: D Division	
Range Location and Address : 2 Hedderlyey Str., Dauphin, Manitoba	
1. Indoor Firing Range	
Range Operating instructions c/w H&S	Policies on Board, Safety Regulations in place
Operation :	
Shooting Length and No. of Lanes :	25 meters, five (5) lines
Hours of Operation :	24/7 with restricted hours
Weaponry used :	9 mm hand gun , 12 gage shotgun
Used by :	RCMP, DFO, DNR, Parks Canada, based on MOU
Facility/Functional :	
Waiting Area :	In Combined Room
Corridor Area :	In Combined Room
Gun Cleaning Area :	In Combined Room
Cleaning Area :	In Combined Room
Ammo Storage Area :	Yes
Washrooms :	Out side of Firing Range
Other/Special :	Facility in nice clean condition
Facility/ballistic :	
Floors :	Concrete and painted
Walls :	Concrete / concrete blocks
Ceiling :	Concrete protected by steel baffles & 3/8" plywood
Lighting :	Fluorescent in combination with not suitable Halogen
Fire Alarms & Sprinklers :	Alarm for fire in place, no sprinklers
Target Holders/Mechanisms :	Overhead movable targets in fair condition
Bullet Traps :	Original dated 1997 in good condition
Other/Special :	The door on right side shall be better protected
	All bolts, nuts and 90 degrees edges on steel material shall be bevelled into the ballistic friendly angles
Facility/Environmental	
Ventilation System :	Separate from Bldg. Positive air pressure in the Range
Intake/Exhaust :	Fresh Air / filtered exhaust
Filtration System :	Exhaust with Hepa Filters
Bullet Traps Design :	Venetian design steel plated Back stop
Lead Contamination & disposal :	Trap cleaned twice a year
Acoustic:	Very loud, need to be upgraded up to required level
Other/Special :	Scheduled air pressure monitoring is required
Other/Special :	
Notes :	

Winnipeg, Manitoba

View over the Range



Back side of damaged baffles



Damaged Baffles



Lights, Baffles & Sprinklers



Back Stop



Floor Drains



Thompson, Manitoba

Rear View of the Range



Bullet trap



Combined Room



Baffle Structure



Lights with protective Plexiglas



Exhaust Ventilation System



Dauphin, Manitoba.

Rear View



Air Inlets in the Range



Back Stop



Steel baffles with plywood



Steel plate Baffle



Combined Room



