

# RAPID CITY FIREARMS RANGE COMPLEX



# PROJECT SUMMARY

## PROJECT DESCRIPTION

The SD GFP’s Rapid City Firearms Range Complex aims to be the premier firearms range complex in the region. Four hundred acres of rolling topography, solitude and natural beauty offer the perfect site for sporting enthusiasts within minutes from Rapid City.

Organized in two separate areas (north and south), the complex offers a wider variety of options for all levels from hunters and recreational shooters to law enforcement training spaces. Designed with safety in mind, the range complex will offer men, women and children of all ages a world class opportunity to participate in multiple shooting sports. There is plenty of room for beginners and experts to shoot side by side with facilities for education, outreach, and organized shooting competitions.

The Master Plan is presented in phases for development based on funding availability and indicating potential for future growth based on the growing needs of the sporting population.

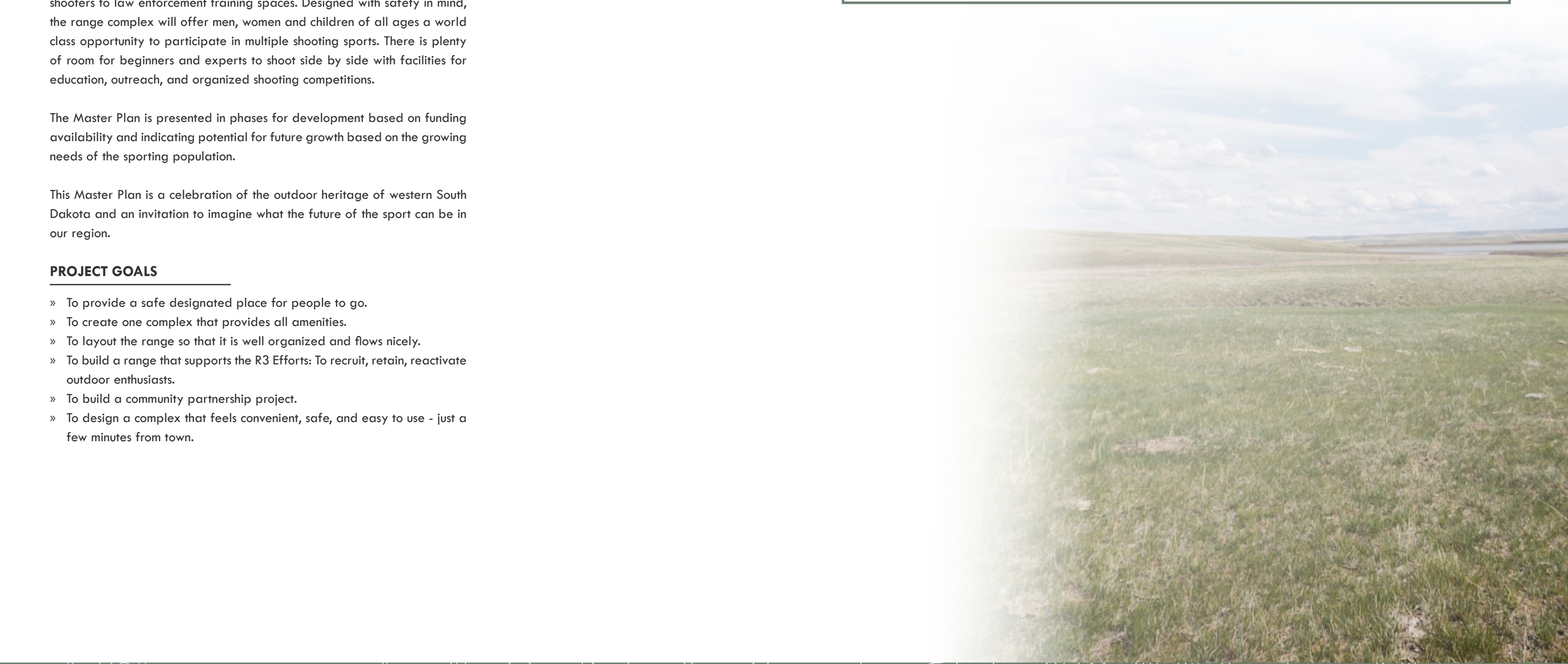
This Master Plan is a celebration of the outdoor heritage of western South Dakota and an invitation to imagine what the future of the sport can be in our region.

## PROJECT GOALS

- » To provide a safe designated place for people to go.
- » To create one complex that provides all amenities.
- » To layout the range so that it is well organized and flows nicely.
- » To build a range that supports the R3 Efforts: To recruit, retain, reactivate outdoor enthusiasts.
- » To build a community partnership project.
- » To design a complex that feels convenient, safe, and easy to use - just a few minutes from town.

“GROWING UP IN SOUTH DAKOTA, SHOOTING SPORTS WERE A BIG PART OF HOW I WAS RAISED. OUR RESIDENTS AND OUR VISITORS SHOULD HAVE ACCESS TO QUALITY SHOOTING RANGES WHERE THEY CAN LEARN SAFE AND RESPONSIBLE USE OF FIREARMS. THIS NEW FREE PUBLIC RANGE IS JUST MINUTES FROM RAPID CITY AND WILL OFFER THE FINEST OUTDOOR SHOOTING RANGE EVER CONSTRUCTED BY GAME, FISH AND PARKS. THIS WILL PROVIDE OPPORTUNITIES SO THAT GENERATIONS TO COME CAN LEARN TO LOVE SHOOTING SPORTS JUST AS I DID.”

**GOVERNOR KRISTI NOEM**



# PROJECT PROGRAM



21170 Rapid City Range Complex

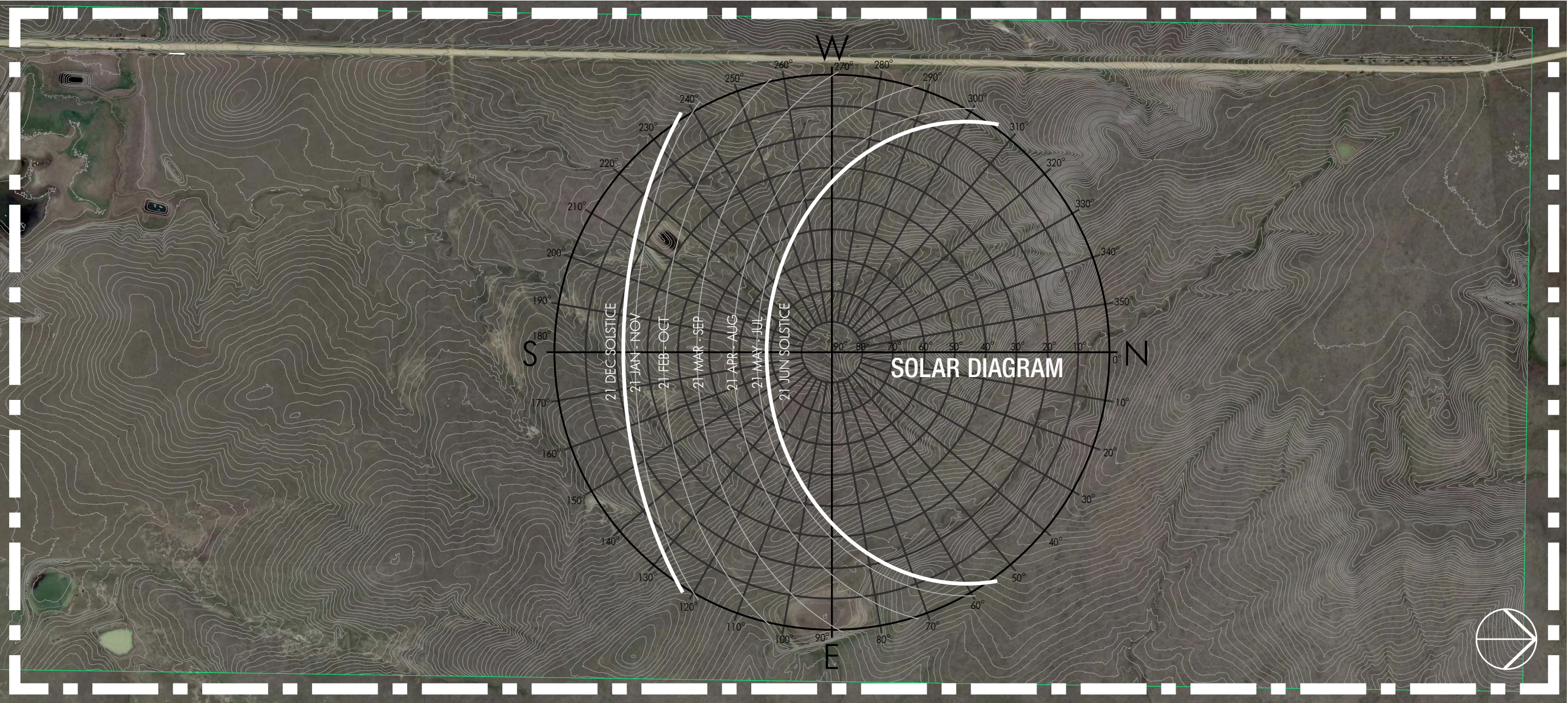
PROJECT PROGRAM

	Area / Activity	Qty	Lanes	Dimension	Requirements	Equipment	Adjacencies	NOTES:
BUILDING FACILITY NET AREAS:								
SOUTH END								
	Hunter Ed Building	1		60' x 110'	Overhead door into storage (for driving equipment in / out)		Good visual control of area from office window	Potential of using the space for air rifles. Will have a mezzanine, office space, bathrooms (single use - two), multiuse space for shooting lanes, classes, meetings, storage for equipment and targets.
	50-yard Bay	6	5 lanes per bay	18 yds x 50 yds per bay	Side and back berms	Two bays with shooting benches for .22, muzzleloader, etc.		
	100-yard Bay	6	10 lanes per bay	36 yds x 100 yds per bay	Side and back berms	Shooting Benches		
	200-300 yard Shooting Area	1	40 shooting positions	43,000-yard area		Metal targets and shooting benches		
	Stationary Shotgun Clay Target Area	10 stations	1 lane per station	10' x 10' shooting pad and 900' fallout range	Shooting window mounted to shooting area	Mounted clay bird throwers		
LONG RANGE								
	Long Range	1	20 lanes per bay	72 yds x 1,200 yds per bay	Longest target range set to 1,200-yds	Staggered targets from 300-yds to 1,200-yds		
NORTH END								
	Action Bay	11	-	30 yds x 50 yds per bay	Each action bay to have a shelter and electrical power			
	Action Bay	3	-	30 yds x 75 yds per bay	Each action bay to have a shelter and electrical power			
	Action Bay	3	-	30 yds x 100 yds per bay	Each action bay to have a shelter and electrical power			
	Versatile Training Area	1	-	50 yds x 300 yds	Gravel path around the action area. Includes berming on all sides			
	Sporting Clays	12 stations	1 lane per station	10' x 10' shooting pad and 900' fallout range	Shooting window mounted to shooting area	Mounted clay bird throwers		

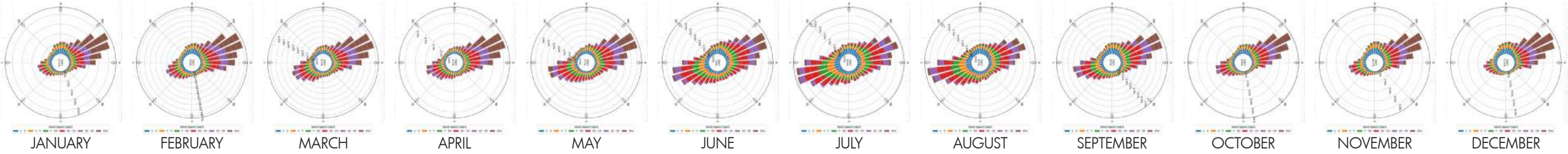
EXISTING SITE | SITE LOCATION



# EXISTING SITE | SITE ANALYSIS



## WIND ROSES



# CASE STUDIES

## CMP TALLADEGA MARKSMANSHIP PARK

### CIVILIAN MARKSMANSHIP PROGRAM | TALLADEGA, AL

CMP is a national organization dedicated to training and educating U.S. citizens in responsibility uses of firearms and air rifles through gun safety training, marksmanship training and competitions.



## CAMEO SHOOTING AND EDUCATION COMPLEX

### CAMEO SHOOTING AND EDUCATION COMPLEX | PALISADE, CO

Thoughtfully designed by competitive shooters seeking to build a world-class shooting environment, the Cameo Shooting and Education Complex is a top destination for people from all over the world to participate in organized shooting competition.

The Complex serves as an educational and training facility, where kids can learn about the safe use of firearms and law enforcement can sharpen their skills.



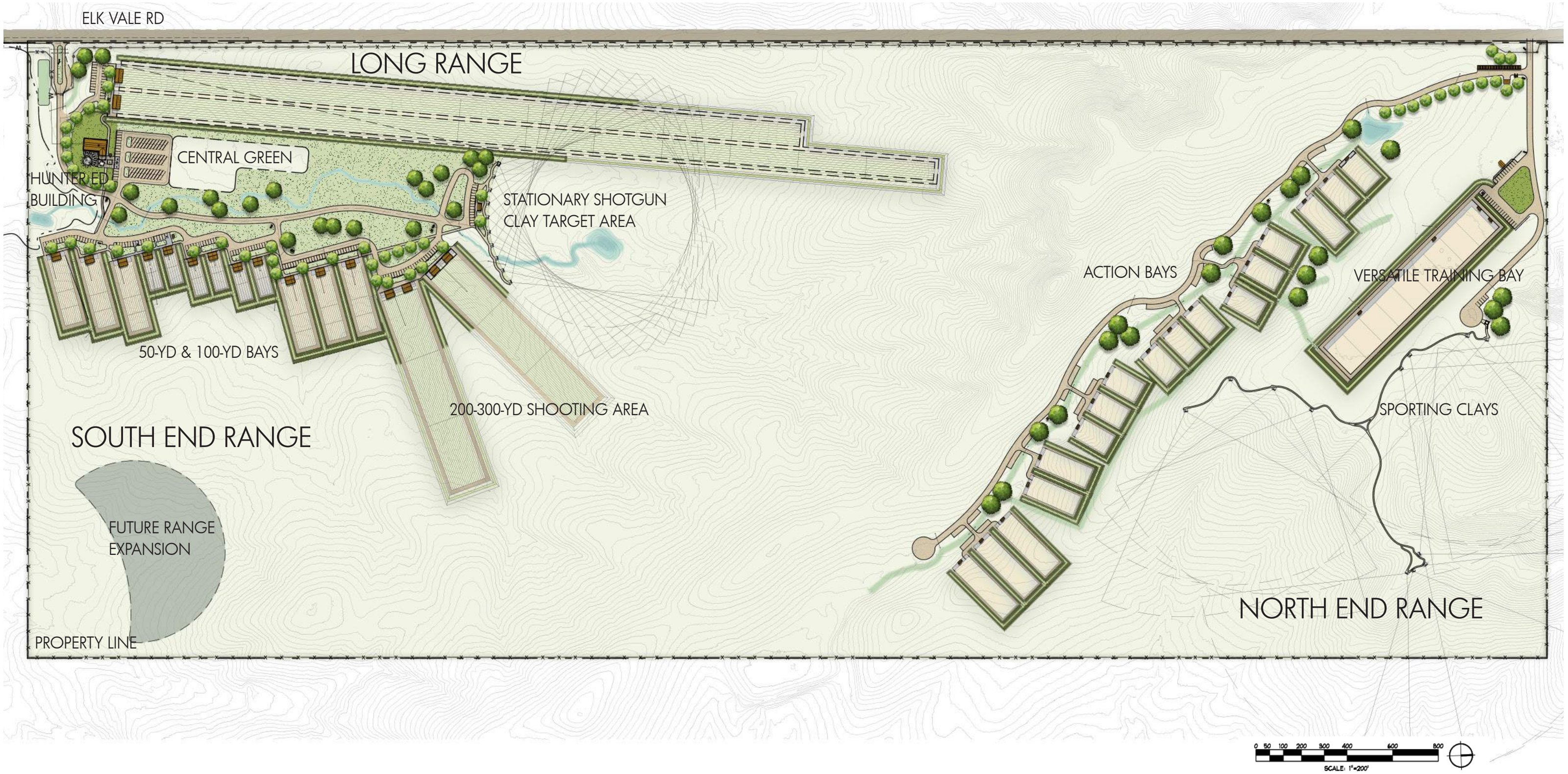
# CASE STUDIES

## SITE SUPPORT BUILDINGS



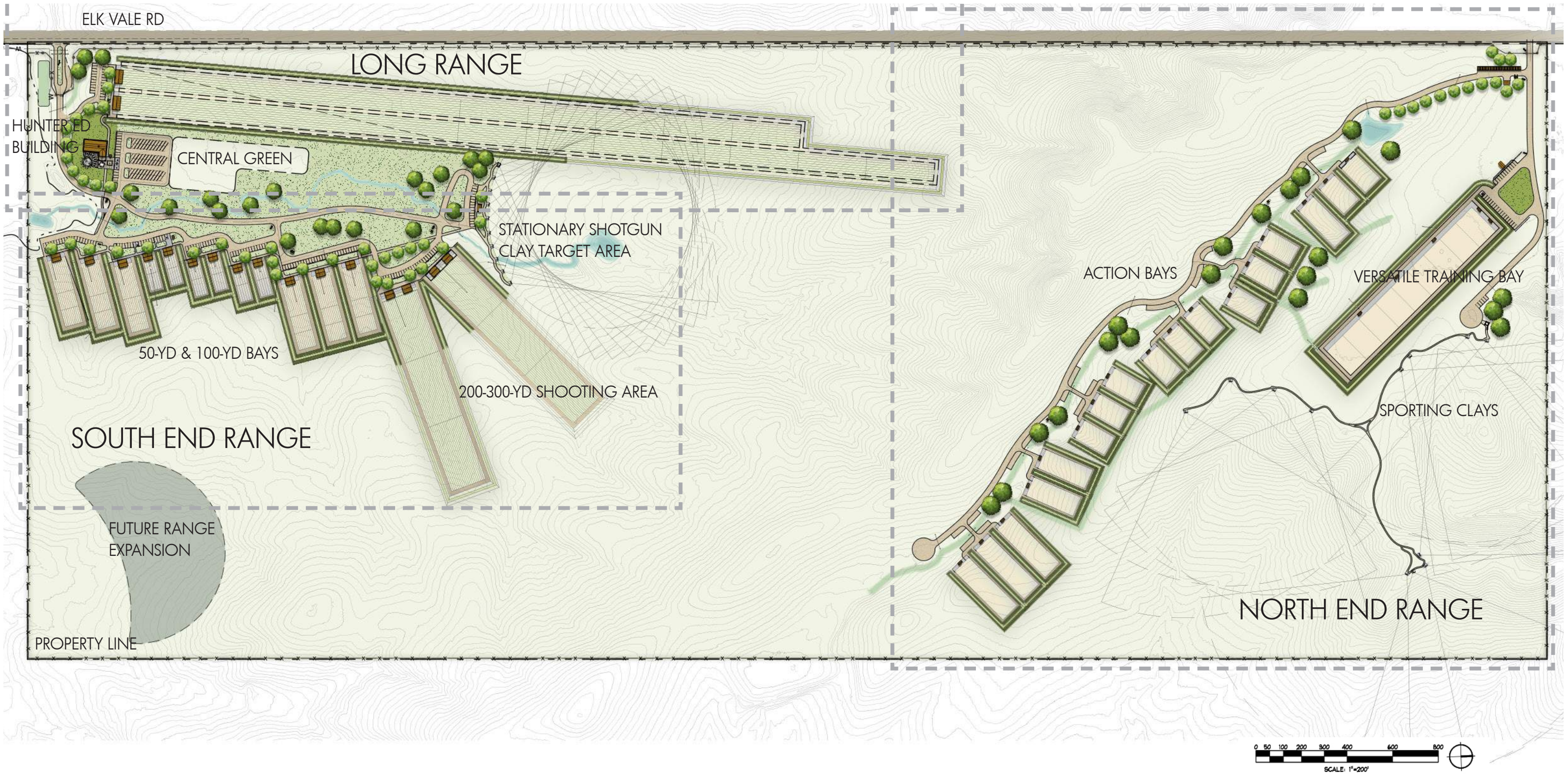
MASTER PLAN

OVERALL SITE

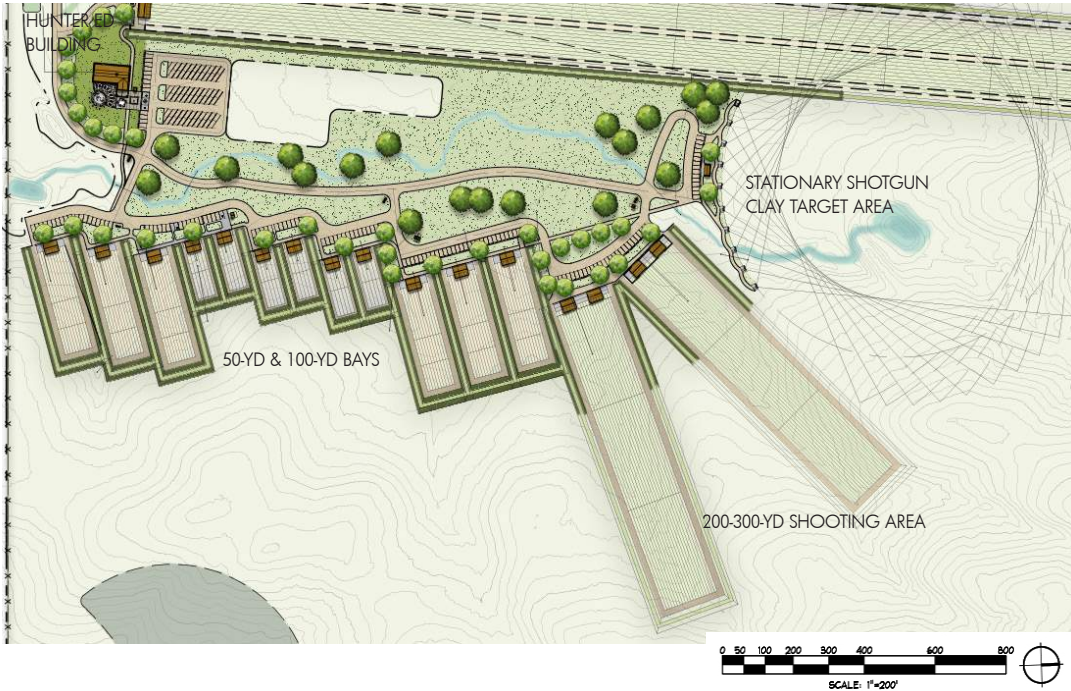


# MASTER PLAN

## PHASING PLAN



SOUTH END RANGE



The Complex's South End Range is intended to be open to the general public. A visible entrance feature will welcome guests to the Complex and provide navigation for visitors on the different areas to be accessed. Adequate wayfinding will be incorporated into the design for ease of navigation. The range provides a wide variety of areas to cater to the varied interest of hunters and recreational shooters.

SPECIFICATIONS

- 50-yard Bays
  - » Six (6) bays with five (5) lanes each
- 100-yard Bays
  - » Six (6) bays with ten (10) lanes each
- 200/300-yard Shooting Area
  - » Forty (40) shooting positions
- Stationary Shotgun Clay Target Area
  - » Ten (10) shooting positions with mounted clay bird throwers

LOGISTICS

- Parking lot with approx 100 stalls
- Parking area convenient from each bay
- Storage space
- Vault toilets located throughout

SHOOTING BAY AMENITIES

- Gravel surfacing
- Shade shelter outside action line

LONG RANGE



The Long Range will share an entrance to the South End Range and will operate concurrent from other areas. This area provides the maximum shooting lengths that the site allows. The range is rotated 50 from the road in order to avoid visual distractions along the road. This area is accessible to experienced shooters. The Hunter Ed Building will provide space for a staff office with good visibility of the range for when staff is present. A Central Green space can accommodate various uses including overflow parking, but also space for outdoor events.

SPECIFICATIONS

Long Range

- One (1) bay with twenty (20) lanes
- Two (2) shooting positions each lane
- F Class Position at 600-yards

Hunter Education Building

- Flexible use building
- Twelve (12) air rifle or archery lanes

LOGISTICS

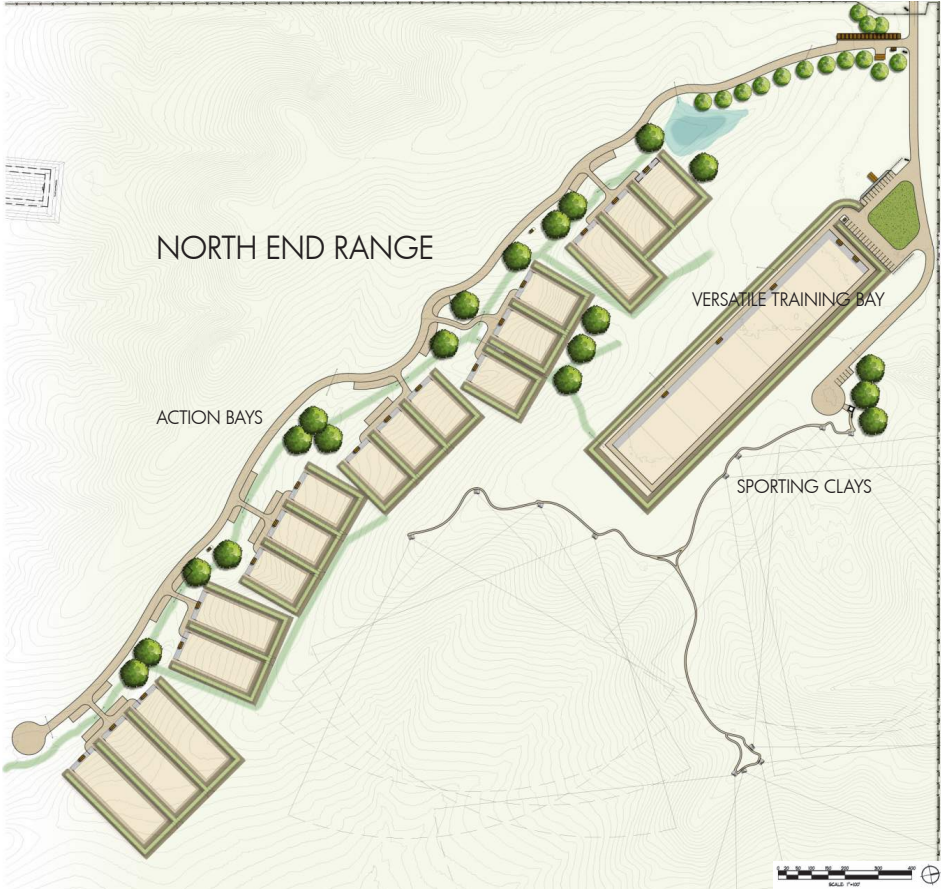
- Parking lot with approx 100 stalls
- Parking area convenient from each bay
- Storage space

SHOOTING BAY AMENITIES

- Gravel surfacing
- Shade shelter outside action line



NORTH END RANGE



The Complex's North End Range is located in the highest point of the site, the area with the most challenging topography, lending itself nicely to the Sporting Clays area. The North End Range will have controlled access and the entrance will not be prominently noticeable from the road. Adequate way-finding will be incorporated into the design for ease of navigation. The range provides a variety of areas to cater to the varied interest of the experienced shooters, shooting clubs and law enforcement groups.

SPECIFICATIONS

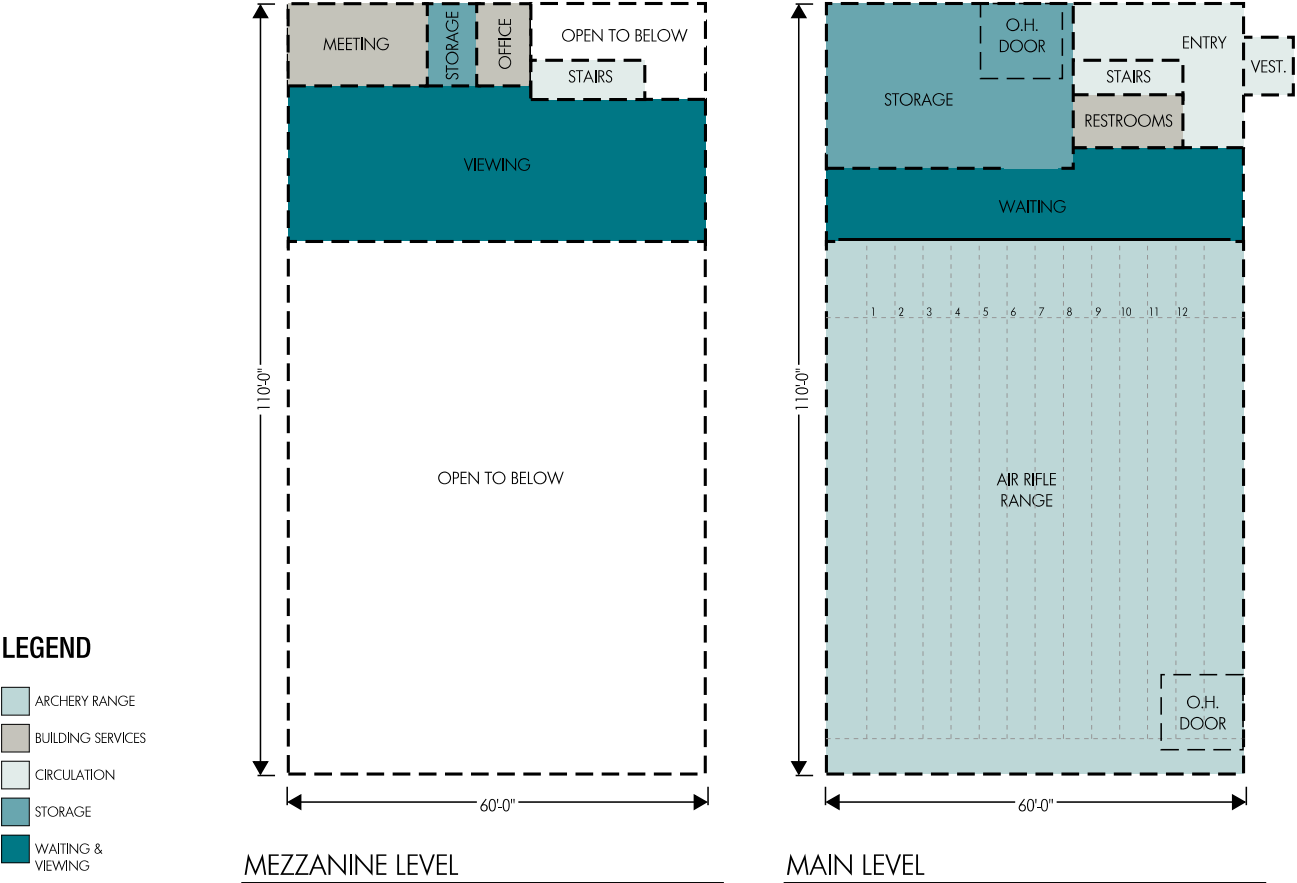
- Action Bays
- » Eleven (11) 50-yard bays
  - » Three (3) 75-yard bays
  - » Three (3) 100-yard bays
- Versatile Training Bay
- Sporting Clays (Shotguns)
- Twelve (12) shooting positions with mounted clay bird throwers

LOGISTICS

- Parking area convenient from each bay
- Area for placement of storage sheds
- Vault toilets located throughout



HUNTER ED BUILDING



SPECIFICATIONS

Dimensions: 60' x 110'

POTENTIAL USES

- Hunter Education Classes
- Large / Small Meeting Capacity
- Staff Office
- Storage with direct exterior access
- Air Rifle or Archery lanes with twelve (12) shooting lanes at 20-yds

USERS

- Education staff and students
- Youth Groups
- Shooting sports groups

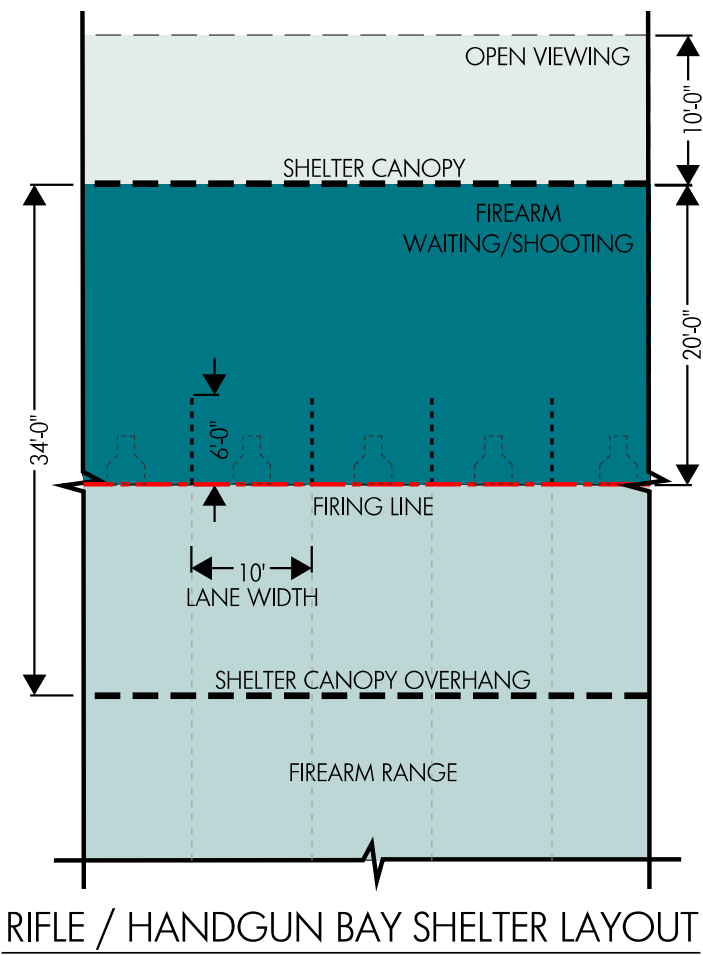
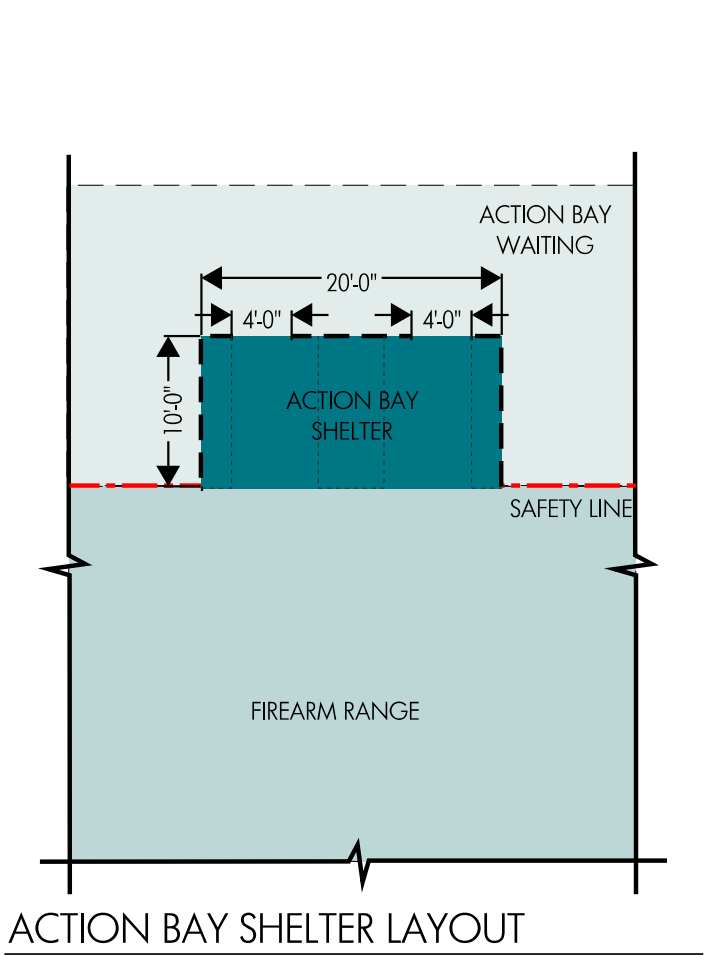
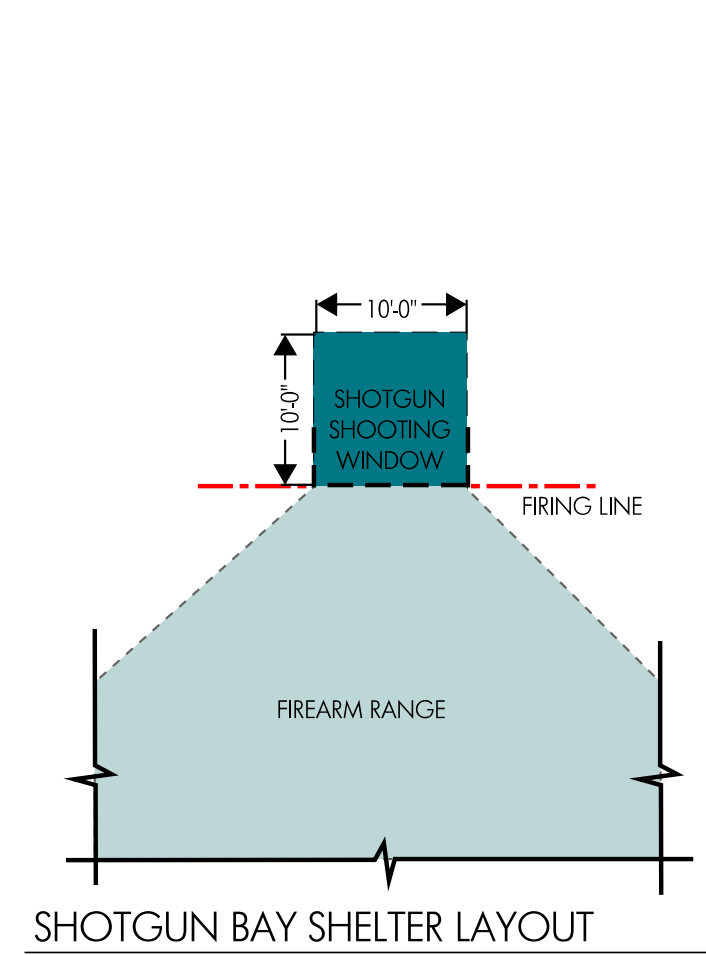
AMENITIES

- Power
- Water
- Technology
- Views of South Range

HUNTER ED BUILDING AND PLAZA



# TYPICAL RANGE SHELTERS



# TYPICAL LAYOUTS

## 50 YARD RANGE

**LOCATION**

South End Range

**SPECIFICATIONS**

- Six (6) bays with five (5) lanes each
- Two (2) of the lanes with benches
- Storage shelf / table at shooting lanes

**DIMENSIONS**

- Lane: 10’ wide
- Side Boundary: 8’ wide
- First Target Line: 25 yards
- Second Target Line: 50 yards
- Back Berm: 52 yards

**TARGETS**

Paper Targets on Target Backer

**BERM HEIGHT**

- Sides: 12’ minimum design height
- End: 20’ minimum design height

- Primary Weapons:** Pistols, muzzle loaders, and possibly rifles for sighting in
- Age Range:** Users of all ages
- Experience Level:** Novice to Experienced
- Potential associated use:** Possibly some competition shooting and club days for local gun clubs.



## 100 YARD RANGE

**LOCATION**

South End Range

**SPECIFICATIONS**

- Six (6) bays with ten (10) lanes each
- All lanes with benches - ambidextrous

**DIMENSIONS**

- Lane: 10’ wide
- Side Boundary: 8’ wide
- First Target Line: 50 yards
- Second Target Line: 75 yards
- Third Target Line: 100 yards
- Back Berm: 106 yards

**TARGETS**

Paper Targets on Target Backer

**BERM HEIGHT**

- Sides: 12’ minimum design height
- End: 20’ minimum design height

- Primary Weapons:** Rifles
- Age Range:** Users of all ages
- Experience Level:** Novice to Experienced
- Potential associated use:** Possibly some competition shooting and club days for local gun clubs.



“WE ARE AIMING TO CREATE THE PREMIER FIREARM RANGE IN WESTERN SOUTH DAKOTA. FOUR HUNDRED ACRES OF ROLLING TOPOGRAPHY AND SOLITUDE OFFER THE PERFECT SITE FOR OUR SPORTING ENTHUSIASTS WITHIN MINUTES OF RAPID CITY.”

JOHN KANTA, TERRESTRIAL SECTION CHIEF

# TYPICAL LAYOUTS

## 200-300 YARD RANGE

### LOCATION

South End Range

### SPECIFICATIONS

Forty (40) shooting positions  
All lanes with benches - ambidextrous

### DIMENSIONS

Lane: 10’ wide  
Side Boundary: 8’ wide  
First Target Line: 100 yards, then at each 25 yard line after  
Back Berm: 306 yards

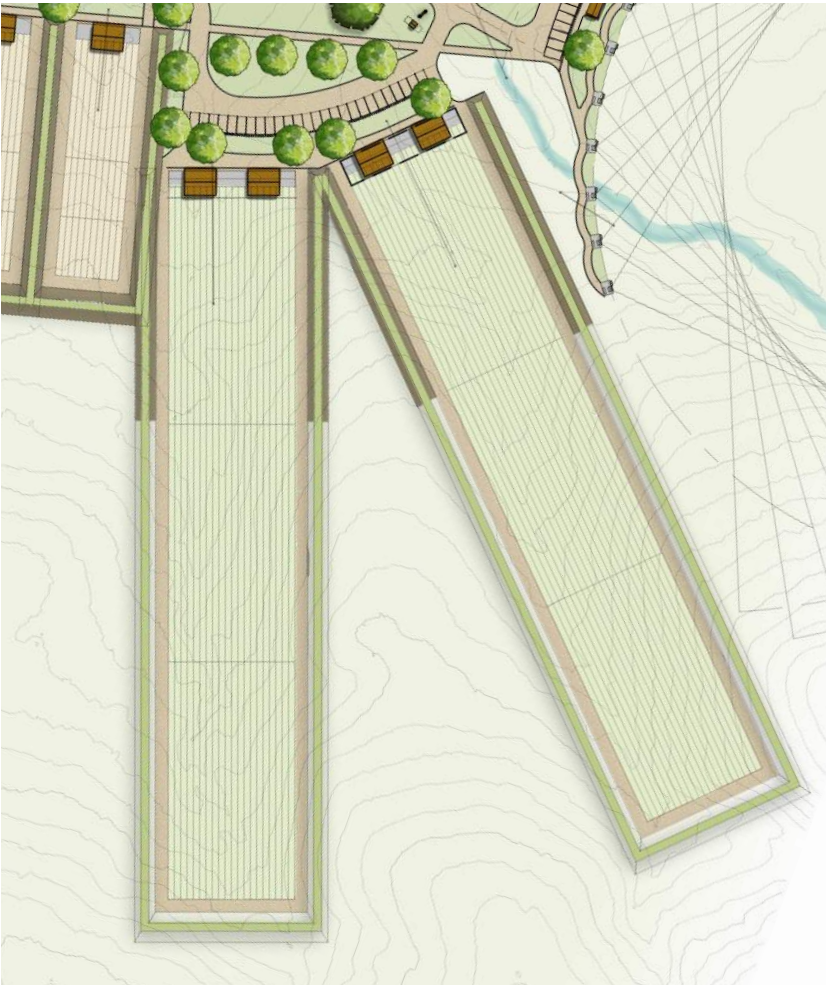
### TARGETS

Steel Targets

### BERM HEIGHT

Sides: 12’ minimum design height  
End: 20’ minimum design height

**Primary Weapons:** Rifles  
**Age Range:** Teenager and older  
**Experience Level:** Novice to Experienced  
**Potential associated use:** Used for long range shooting matches and precision rifle competitions.



## 1,000 AND 1,200 YARD RANGE

### LOCATION

Long Range

### SPECIFICATIONS

One (1) bay with twenty (20) shooting positions  
All lanes with benches - ambidextrous

### DIMENSIONS

Lane: 10’ wide  
Side Boundary: 8’ wide  
First Target Line: 300 yards, then at each 100 yard line after  
Back Berm: 1,200 yards

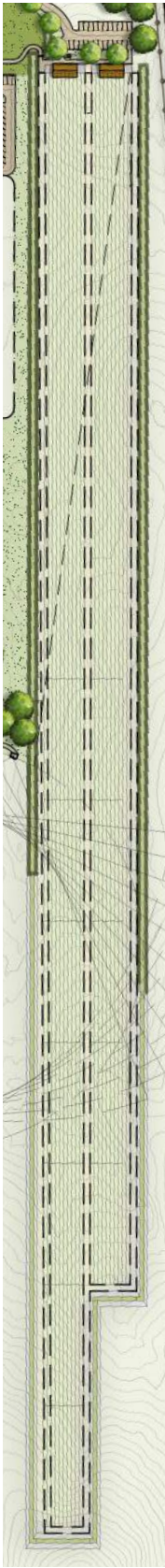
### TARGETS

Steel Targets

### BERM HEIGHT

Sides: 12’ minimum design height  
End: 20’ minimum design height

**Primary Weapons:** Rifles  
**Age Range:** Teenager and older  
**Experience Level:** Experienced  
**Potential associated use:** Open to the public. Used for long range shooting matches and precision rifle competitions.



# TYPICAL LAYOUTS

## STATIONARY SHOTGUN CLAY TARGET AREA

### LOCATION

South End Range

### SPECIFICATIONS

Ten (10) shooting locations  
Clay bird throwers bolted down

### DIMENSIONS

10' x 10' concrete pad  
Shooting frame  
900' fall out area

### TARGETS

Clay birds

**Primary Weapons:** Shotguns with non-toxic ammo

**Age Range:** Users of all ages

**Experience Level:** Novice to Experienced

Potential associated use: Used by local clubs for contests.



## ACTION BAYS

### LOCATION

North End Range

### SPECIFICATIONS

Eleven (11) bays - 50 yard length  
Three (3) bays - 75 yard length  
Three (3) bays - 100 yard length

### DIMENSIONS

Bay: 30 yards wide  
Side Boundary: 8' wide  
Targets: By user group  
Back Berm: 56 yards, 81 yards, 106 yards depending on bay length

### TARGETS

By user group

### BERM HEIGHT

Sides: 12' minimum design height  
End: 20' minimum design height

**Primary Weapons:** Multiple Weapons

**Age Range:** Teenager and older

**Experience Level:** Experienced - Limited public access to range

**Potential Associated Use:** Primarily used by shooting groups.



# TYPICAL LAYOUTS

## VERSATILE TRAINING BAY

**LOCATION**

North End Range

**SPECIFICATIONS**

One (1) bay - 50 yards by 300 yards

**DIMENSIONS**

Bay: 300 yards wide  
Side Boundary: 8' wide  
Back Berm: 56 yards

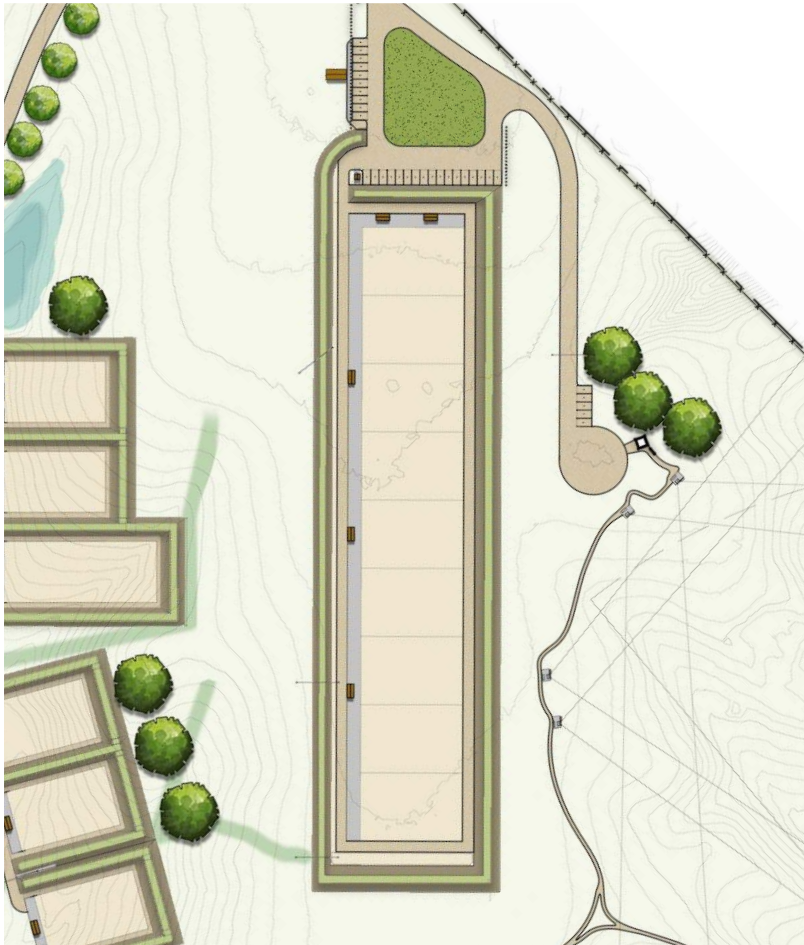
**TARGETS**

By user group

**BERM HEIGHT**

Sides: 12' minimum design height  
End: 20' minimum design height

**Primary Weapons:** Multiple Weapons  
**Age Range:** Teenager and older  
**Experience Level:** Experienced / Professional - Limited public access to range  
**Potential Associated Use:** Multiple use area for competition matches, shooting clubs, archery, general public use and law enforcement training and qualifying area. Used by local police, sheriff, federal agencies and GFP LE.



## SPORTING CLAYS

**LOCATION**

North End Range

**SPECIFICATIONS**

Twelve (12) shooting locations

**DIMENSIONS**

10' x 10' concrete pad  
Shooting frame  
900' fall out area

**TARGETS**

Clay birds

**Primary Weapons:** Shotguns  
**Age Range:** Users of all ages  
**Experience Level:** Novice to experienced - Limited public access to range  
**Potential Associated Use:** Used by local clubs for contests and limited public access.



# POTENTIAL IMPACT

The total economic impact of the firearm and ammunition industry in the United States increased from \$19.1 billion in 2008 to \$63.5 billion in 2019, a 232 percent increase, while the total number of full-time equivalent jobs rose from approximately 166,000 to over 342,330, a 106 percent increase in that period, according to a report released by the National Shooting Sports Foundation®, the industry’s trade association.

Southwick Associates’ reports that Federal Aid in Wildlife Restoration excise taxes are generated by huntingrelated and non-hunting related activities. Non-hunting activities are generally comprised of recreational shooting, home and self-defense, firearms collecting and non-law enforcement or military work-related purchases. As of 2020, firearms represented 59.9% of all U.S. consumer sales obligated to pay into the Wildlife Restoration program. The other sources are ammunition (33.9% of taxable sales) and archery products (6.2%). Of U.S. retail firearms sales, 22.0% can be assigned to hunting purposes, and the remainder (78.0%) to non-hunting purposes. Of U.S. retail ammunition sales, 32.3% can be assigned to hunting purposes, and the remainder (67.7%) to non-hunting purposes.

Currently in Pennington County, approximately 4.74% of the total population participated regularly in shooting sports in the past 12 months. The statewide average of shooting sport participants in South Dakota is 5.55% of the total population. One of the goals of the Rapid City firearm range complex is to recruit and reactivate shooting sport participants in Pennington County and surrounding areas to increase the percentage of shooting sport participants up to the at least the statewide average. With this increase we could expect approximately 865 more shooters just in Pennington County from the current 5,393 for a total of 6,258. Shooting sport participants spend between \$100 and \$250 per month or \$1,200 - \$3,000 per year on shooting equipment, ammo, guns, etc. These numbers are considered to be low due to the current demand for and availability and prices of shooting sport products. Currently, shooting sport participants in Pennington County are spending approximately \$6,471,600 - \$16,719,000 (\$11,325,300 Average) annually on shooting sports. Increasing the number of shooting sport participants in Pennington County to the statewide average would generate an estimated increase of \$1,038,000 - \$2,595,000 of additional money spent on shooting sports annually. Based on the estimates above, Pennington County could see a 16% increase in money spent on shooting sports equipment alone.

The Rapid City firearm range complex will also host a number of local and national shooting competitions and events which will generate significant positive economic impact to the area. As an example, Southwick Associates’ reported that the 2015 SSSF National Championship at the World Shooting and Recreational Complex in Sparta, Ill. contributed \$15,797,787 to the Illinois GDP, generated \$3,960,917 in tax revenues, and supported 245 jobs in the state.

# PROBABLE COST

CONSTRUCTION COSTS			
Long Range Bays and Visitor Center		Cost/SF	Area (SF)
Hunter Ed Building	\$120	8,600	\$1,032,000
Surfacing			\$382,000
Site Furnishings			\$420,000
Landscaping			\$252,000
Earthwork and Grading			\$968,000
Utilities			\$365,999
Structures			\$25,000
SUBTOTAL			\$3,444,999
South Site			
Surfacing			\$642,000
Site Furnishings			\$511,000
Landscaping			\$107,000
Earthwork and Grading			\$786,000
Utilities			\$141,000
Structures			\$45,000
SUBTOTAL			\$2,232,000
North Site			
Surfacing			\$482,000
Site Furnishings			\$474,000
Landscaping			\$74,000
Earthwork and Grading			\$688,000
Utilities			\$40,000
Structures			\$55,000
SUBTOTAL			\$1,813,000
Contingency	15%		\$1,123,500
Escalation Fall 2021 Start			\$0
SUBTOTAL			\$1,123,500
TOTAL CONSTRUCTION COSTS			\$8,613,499
SOFT COSTS (OWNER)			
Professional Fees			\$0
Reimbursable Expenses			\$0
Owner Fees			\$0
Furniture, fixtures and equipment (FFE)			\$0
Technology Security and Equipment			\$0
Site Survey			\$0
Geotechnical Report			\$0
Hazardous Material Abatement			\$0
Temporary Heat			\$0
Special Inspections and Testing			\$0
Permits			\$0
Tapping Fee			\$0
Legal, Admin or Miscellaneous Cost			\$0
Moving Cost			\$0
*All softcosts are estimated at 15%			
TOTAL SOFT COSTS			\$1,292,025
TOTAL PROJECT COST			
TOTAL PROJECT COST			\$9,905,524



**BUDGET SUMMARY**  
JLG #21170 GFP Rapid City Firearms Range  
Issued: Date June 2021

# THANK YOU!

