

MONTANA FISH, WILDLIFE & PARKS

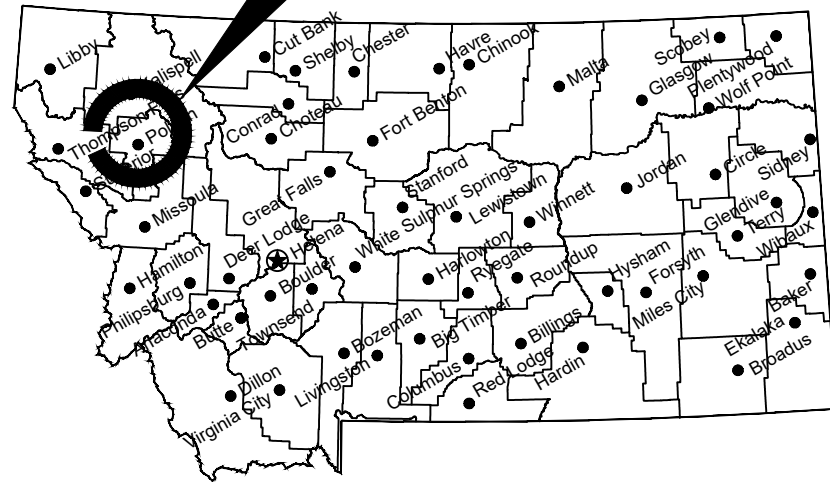
# BIG ARM ARCHERY

# FISH, WILDLIFE & PARKS - BID SET

36055 US HWY 93, BIG ARM, MT

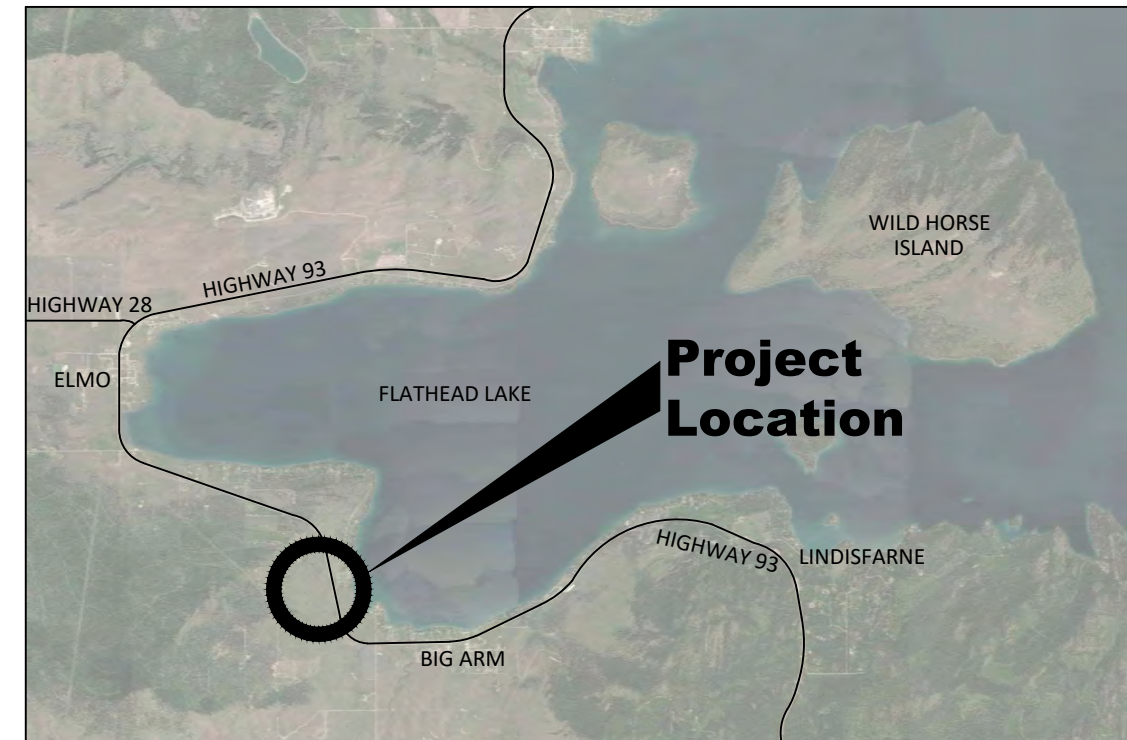
FWP # 7218000

## Project Location



## Location Map

No Scale



## Vicinity Map

No Scale

North



MONTANA FISH, WILDLIFE AND PARKS  
DESIGN AND CONSTRUCTION

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MONTANA FISH,  
WILDLIFE & PARKS

TITLE SHEET  
BIG ARM ARCHERY PROJECT



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**MONTANA FISH,  
WILDLIFE & PARKS**

**SHEET INDEX**  
**BIG ARM ARCHERY PROJECT**



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**ABBREVIATIONS**

<b>A</b>	
AC	ACRE
ADD	ADDENDUM
AB	AS-BUILT
AHJ	AGENCY HAVING JURISDICTION
<b>B</b>	
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
BTM	BOTTOM
BLVD	BOULEVARD
BLDG	BUILDING
<b>C</b>	
CATV	CABLE TV
CL	CENTER LINE
CJ	CONSTRUCTION JOINT
<b>D</b>	
DEQ	DEPARTMENT OF ENVIRONMENTAL QUALITY
DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DWG	DRAWING
DR	DRIVE

<b>E</b>	
EW	EACH WAY
E	EAST
ELEC	ELECTRIC
ELEV	ELEVATION
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
<b>F</b>	
FT	FEET
FO	FIBER OPTIC
FF	FINISHED FLOOR
FWP	FISH, WILDLIFE & PARKS
FEC	FLATHEAD ELECTRIC CO-OP
FM	FORCE MAIN
FJ	FUSED JOINT
<b>G</b>	
G	GAS
GIS	GEOGRAPHIC INFORMATION SYSTEM
<b>H</b>	
HT	HEIGHT
HWY	HIGHWAY
HORIZ	HORIZONTAL
HR	HOUR

<b>I</b>	
IN	INCHES
ID	INNER DIAMETER
IBC	INTERNATIONAL BUILDING CODE
IE	INVERT ELEVATION
<b>J</b>	
JEA	JACKOLA ENGINEERING AND ARCHITECTURE
<b>M</b>	
MH	MANHOLE
MAX	MAXIMUM
MIN	MINIMUM
MVP	MISSION VALLEY POWER
MT	MONTANA
MDT	MONTANA DEPARTMENT OF TRANSPORTATION
MPWSS	MT PUBLIC WORKS STANDARD SPECIFICATIONS
<b>N</b>	
NEC	NATIONAL ELECTRIC CODE
N	NORTH
NWE	NORTHWESTERN ENERGY
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE

<b>O</b>	
O.C.	ON CENTER
O&M	OPERATION AND MAINTENANCE
OPP	OPPOSITE
OHP	OVERHEAD POWER
<b>P</b>	
PVI	POINT OF VERTICAL INTERSECTION
PE	PROFESSIONAL ENGINEER
PROP	PROPERTY
PL	PROPERTY LINE
<b>Q</b>	
QTY	QUANTITY
<b>R</b>	
REF	REFERENCE
REQ'D	REQUIRED
REV	REVISION
ROW	RIGHT-OF-WAY
RD	ROAD
<b>S</b>	
SS	SANITARY SEWER
SCH	SCHEDULE
SIM	SIMILAR
S	SOUTH
SPEC	SPECIFICATION

<b>S CONTINUED</b>	
SF	SQUARE FEET
STD	STANDARD
STA	STATION
SD	STORM DRAIN
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
ST	STREET
<b>T</b>	
TEL	TELEPHONE
TYP	TYPICAL
TBD	TO BE DETERMINED
TBC	TOP BACK OF CURB
<b>U</b>	
UP	UNDERGROUND POWER
UT	UNDERGROUND PHONE
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
<b>V</b>	
VERT	VERTICAL
<b>W</b>	
WTR	WATER
W	WEST
w/	WITH

**LEGEND**

	TRAFFIC SIGN		PIPE CAP		FENCE
	LIGHT POLE		CLEAN OUT		PROPERTY EASEMENT
	GAS METER		SEWER MANHOLE		EXISTING PROPERTY LINE
	CABLE PEDESTAL		STORM MANHOLE		EXISTING OVERHEAD POWER
	TELEPHONE PEDESTAL		CATCH BASIN		EXISTING UNDERGROUND POWER
	ELECTRICAL JUNCTION BOX		STORM DRAIN DRYWELL		EXISTING UNDERGROUND PHONE
	ELECTRICAL PEDESTAL		CURB INLET		EXISTING STORM DRAIN
	EXISTING LIGHT POLE		EXISTING ASPHALT		OVERHEAD POWER
	UTILITY POLE		EXISTING BUILDING		UNDERGROUND POWER
	TRANSFORMER		EXISTING SIDEWALK		UNDERGROUND TELEPHONE
	FIRE HYDRANT		PROPOSED ASPHALT		STORM DRAIN
	FROST FREE YARD HYDRANT		PROPOSED BUILDING		DRAINAGE SWALE/STORM POND
	WATER GATE VALVE		PROPOSED SIDEWALK		EXISTING CONTOUR
	WATER CURB STOP		STANDARD CURB AND GUTTER		DESIGN CONTOUR
	WATER TEE		SPILL CURB AND GUTTER		
	WATER METER PIT		CURB TRANSITION		
	FIRE DEPARTMENT CONNECTION		DRIVE OVER CURB AND GUTTER		
	IRRIGATION VALVE BOX				
	3040.38(e) ✕ EXISTING SPOT GRADE				
	3031.40 ✕ DESIGN SPOT GRADE				
	(3031.90) ✕ TBC DESIGN SPOT GRADE				
	TREE LINE		DECIDUOUS TREE		

**GENERAL NOTES**

1. THE MDT APPROACH PERMIT WAS OBTAINED AND IS INCLUDED IN THE PROJECT MANUAL. CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL PERMITS (ENCROACHMENT PERMIT, ETC) REQUIRED TO CARRY OUT THE WORK.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY AND TRAFFIC CONTROL DURING CONSTRUCTION. CONTRACTOR IS REQUIRED TO MEET ALL SIGNING AND TRAFFIC CONTROL REQUIREMENTS WHILE WORKING WITHIN MDT RIGHT OF WAY IN ACCORDANCE WITH MUTCD SPECIFICATIONS. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO AND APPROVED BY MDT AND FWP PRIOR TO START OF CONSTRUCTION
2. CONTRACTOR SHALL OBTAIN LAKE COUNTY SEPTIC PERMIT PRIOR TO BEGINNING EXCAVATION FOR THE VAULT LATRINE. DEQ APPROVAL WILL BE PROVIDED IN ADVANCE.
3. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH ALL GOVERNING CODES, ORDINANCES AND AUTHORITIES HAVING JURISDICTION. GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR REQUIRED PERMITS NOT OBTAINED BY OWNER. THE GENERAL CONTRACTOR IS TO HAVE A FULL TIME QUALIFIED SUPERVISOR ON THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED.
4. ALL MATERIAL SPECIFIED IS TO BE NEW AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS. GENERAL CONTRACTOR IS TO CONSTRUCT PROJECT IN ACCORDANCE WITH THE DOCUMENTS. ANY DEVIATION FROM THE INTENT OF THE DOCUMENTS, WITHOUT ENGINEER'S APPROVAL, ARE AT THE CONTRACTOR'S OWN RISK AND MAY RESULT IN THE WORK BEING DONE OVER AT CONTRACTOR'S EXPENSE (MATERIALS AND LABOR).
5. CONTRACTOR TO REVIEW AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY CONDITIONS NOT INDICATED ON CONTRACT DOCUMENTS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO STARTING CONSTRUCTION.
6. THE CONTRACTOR SHALL REMOVE ALL DEBRIS AS A RESULT OF THIS PROJECT.
7. THE CONTRACTOR SHALL SCHEDULE HIS WORK AND MATERIAL AND EQUIPMENT DELIVERIES SO AS NOT TO INTERFERE WITH THE DAILY VEHICLE TRAFFIC.
8. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS FROM DAMAGE DURING THE COURSE OF CONSTRUCTION.
9. ALL SURFACES AND/OR FINISHES DAMAGED AS A RESULT OF AND ADJACENT TO THE WORK SHALL BE REPAIRED AND FINISHED TO EQUAL OR BETTER THAN ORIGINAL CONDITION.
10. ALL ITEMS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY PERSONS SKILLED IN THEIR RESPECTIVE TRADE AND WHO NORMALLY PARTICIPATE IN THE WORK OF THAT TRADE.
11. THE ENGINEER SHALL BE IN THE FIRST INSTANCE THE SOLE INTERPRETER OF THE DRAWINGS AND SPECIFICATIONS WITH REGARD TO THEIR MEANING OR INTENT.
12. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO, SWPPP.
14. CONTRACTOR TO OBTAIN A STATE ELECTRICAL PERMIT & COORD. PRIMARY POWER INSTALL W/ MISSION VALLEY POWER (MVP). MVP FEES HAVE BEEN PAID BY OWNER. CONTRACTOR WILL BE RESPONSIBLE FOR WORK ASSOCIATED W/ THE PRIMARY AND SECONDARY POWER (INCLUDING BUT NOT LIMITED TO TRENCHING, BACKFILL, CONDUIT, METER BASE, AND GROUNDING). MVP CONTACT IS BRENT BURLAND, 883-7900 EXT. 3
15. ALL WORK IS TO BE COMPLETED PER MPWSS AND AMENDMENTS INCORPORATED INTO THE PROJECT MANUAL
16. CONTRACTOR SHALL STOP EXCAVATION AND NOTIFY OWNER IF ANYTHING RESEMBLING A CULTURAL ITEM IS UNCOVERED
17. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING UTILITY LOCATES FOR THE PROJECT BY CONTACTING MONTANA811.ORG OR DIALING 811 PRIOR TO EXCAVATION

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**GENERAL CIVIL INFORMATION**  
**BIG ARM ARCHERY PROJECT**



**PROPERTY INFORMATION**

TRACTS 1 AND 2 OF CERTIFICATE OF SURVEY No. 7407RT  
 LOCATED IN E 1/2 SEC. 29 & NE 1/4 SEC. 32, T. 24 N., R. 21 W., LAKE  
 COUNTY, MT

PHYSICAL ADDRESSES: 28031 BIG ARM STATE PARK RD, BIG ARM, MT

**BASIS OF SURVEY**

THIS PROJECT WAS SURVEYED USING RTK GPS AND TIED TO  
 MONTANA STATE PLANE ZONE 2500 BASED ON AN OPUS SOLUTION  
 AT CONTROL POINT NO 1.

THE GEODETIC DATUM IS NAD 83. BASIS OF BEARINGS IS GRID  
 BEARING.

THE VERTICAL DATUM IS NAVD88.

ALL UNITS ARE INTERNATIONAL FEET AT GROUND.

**POINT CP-1 POSITION:**

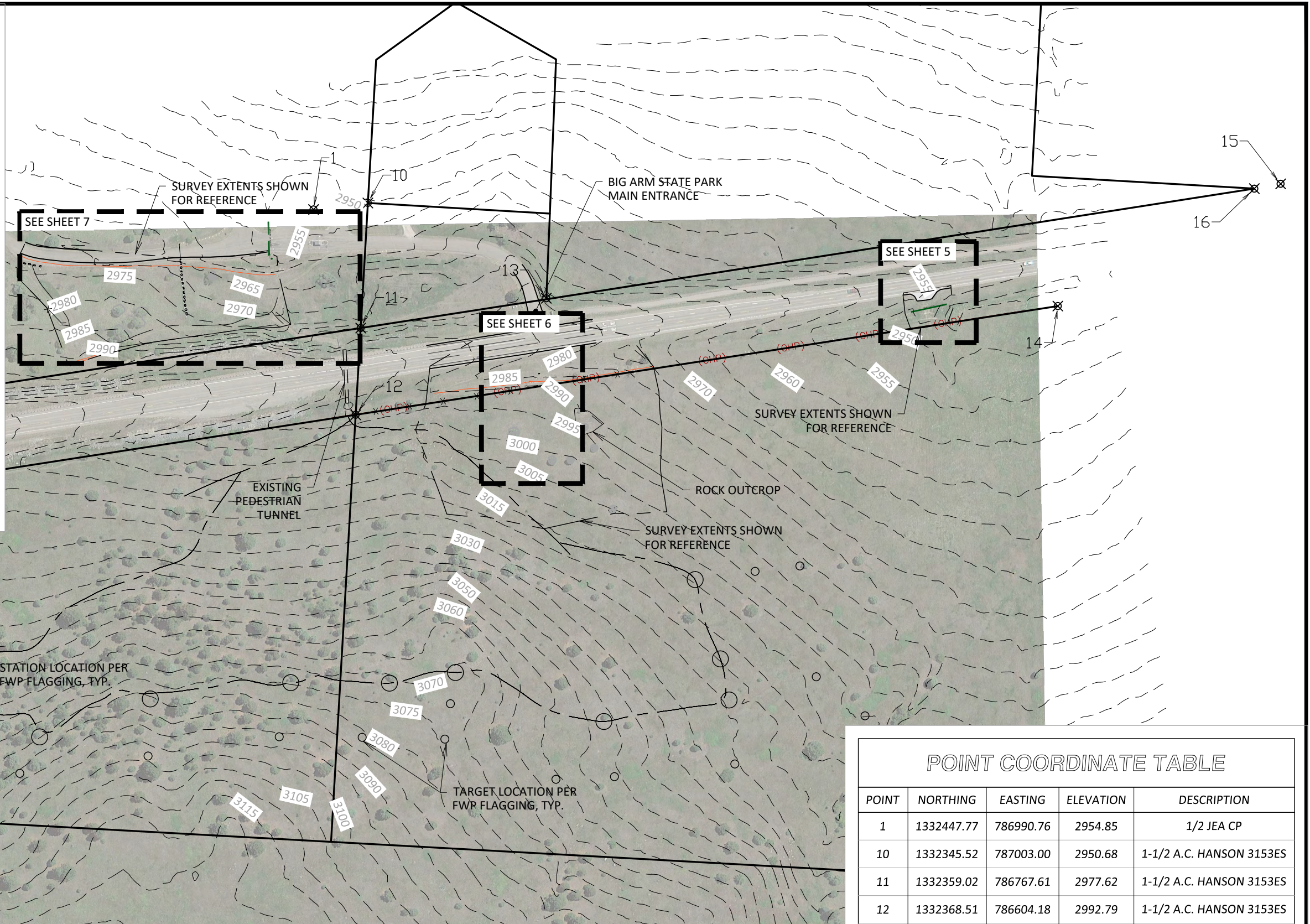
STATE PLANE COORDINATES:

N: 1332447.77  
 E: 786990.76  
 ELEVATION: 2954.85

COMBINED SCALE FACTOR: 0.99934985  
 CONVERGENCE: -3.52088056

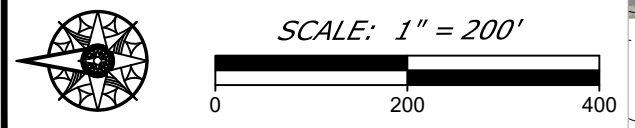
**SURVEY NOTES:**

1. TRAIL, SHOOTING STATIONS, AND TARGETS SHOWN WERE  
 FLAGGED BY FWP PRIOR TO THE FIELD SURVEY.
2. CONTOURS SHOWN OUTSIDE THE SURVEY EXTENTS IS BASED  
 ON AVAILABLE 2009 LIDAR DATA.



**POINT COORDINATE TABLE**

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1332447.77	786990.76	2954.85	1/2 JEA CP
10	1332345.52	787003.00	2950.68	1-1/2 A.C. HANSON 3153ES
11	1332359.02	786767.61	2977.62	1-1/2 A.C. HANSON 3153ES
12	1332368.51	786604.18	2992.79	1-1/2 A.C. HANSON 3153ES
13	1332009.48	786823.65	2977.72	2 A.C. BRIEN 7981S
14	1331046.37	786808.91	2947.03	1-1/2 A.C.
15	1330626.86	787039.01	2940.53	2 A.C. BRIEN 7681S



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**MONTANA FISH,  
 WILDLIFE & PARKS**

**EXISTING SITE SURVEY  
 BIG ARM ARCHERY PROJECT**



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**KEYNOTES:** #

1. NEATLY SAWCUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING ASPHALT. SAWCUT AT EXISTING SHOULDER.
2. PREPARE EDGE OF EXISTING ASPHALT FOR NEW APPROACH: SAWCUT AS REQUIRED.
3. EXISTING SIGN TO BE REMOVED AND STORED ON-SITE. RE-INSTALL AT NEW LOCATION PER SHEET 9.
4. REMOVE EXISTING TREE/SHRUB IN IT'S ENTIRETY.
5. CUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING BARBED WIRE FENCE TO ACCOMMODATE NEW APPROACH. INSTALL H-BRACING AT FENCE TERMINATIONS AS SHOWN ON SHEET 9.
6. REMOVE AND STOCKPILE EXISTING BOULDERS FOR RE-USE.
7. REMOVE EXISTING CULVERT; RE-USE AS POSSIBLE. SLOPE FORESLOPE AND BACKSLOPE TO MATCH EXISTING ON EITHER SIDE OF CULVERT.
8. FIELD VERIFY DEPTH AND ALIGNMENT OF EXISTING UNDERGROUND PHONE PRIOR TO CONSTRUCTION.

ASPHALT REMOVAL

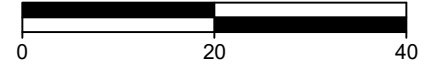
FENCE REMOVAL

**GENERAL NOTES:**

1. SLOPE SHOULDER AND FORESLOPE TO MATCH EXISTING.
2. TRANSITION GRADE FROM NEW EDGE OF ASPHALT TO SHOULDER GRADE TO ELIMINATE ABRUPT EDGE.
3. DRILL SEED DISTURBED AREA WITHIN MDT RIGHT-OF-WAY.
4. ALL DISTURBED AREAS SHALL BE COVERED IN 4" OF STOCKPILED TOPSOIL & SEEDED AT A RATE OF 10PLS LB/ACRE WITH CHS "FOREST MIX" OR EQUAL. 40% MOUNTAIN BROME, 35% BLUEBUNCH WHEATGRASS, 15% WESTERN WHEATGRASS, AND 10% ROUGH FESCUE



SCALE: 1" = 20'



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**MONTANA FISH, WILDLIFE & PARKS**

**SOUTH DEMO PLAN  
BIG ARM ARCHERY PROJECT**



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**KEYNOTES:** #

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8. FIELD VERIFY DEPTH AND ALIGNMENT OF EXISTING UNDERGROUND PHONE PRIOR TO CONSTRUCTION.

ASPHALT REMOVAL

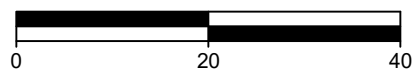
FENCE REMOVAL

**GENERAL NOTES:**

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SCALE: 1" = 20'



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**MONTANA FISH, WILDLIFE & PARKS**

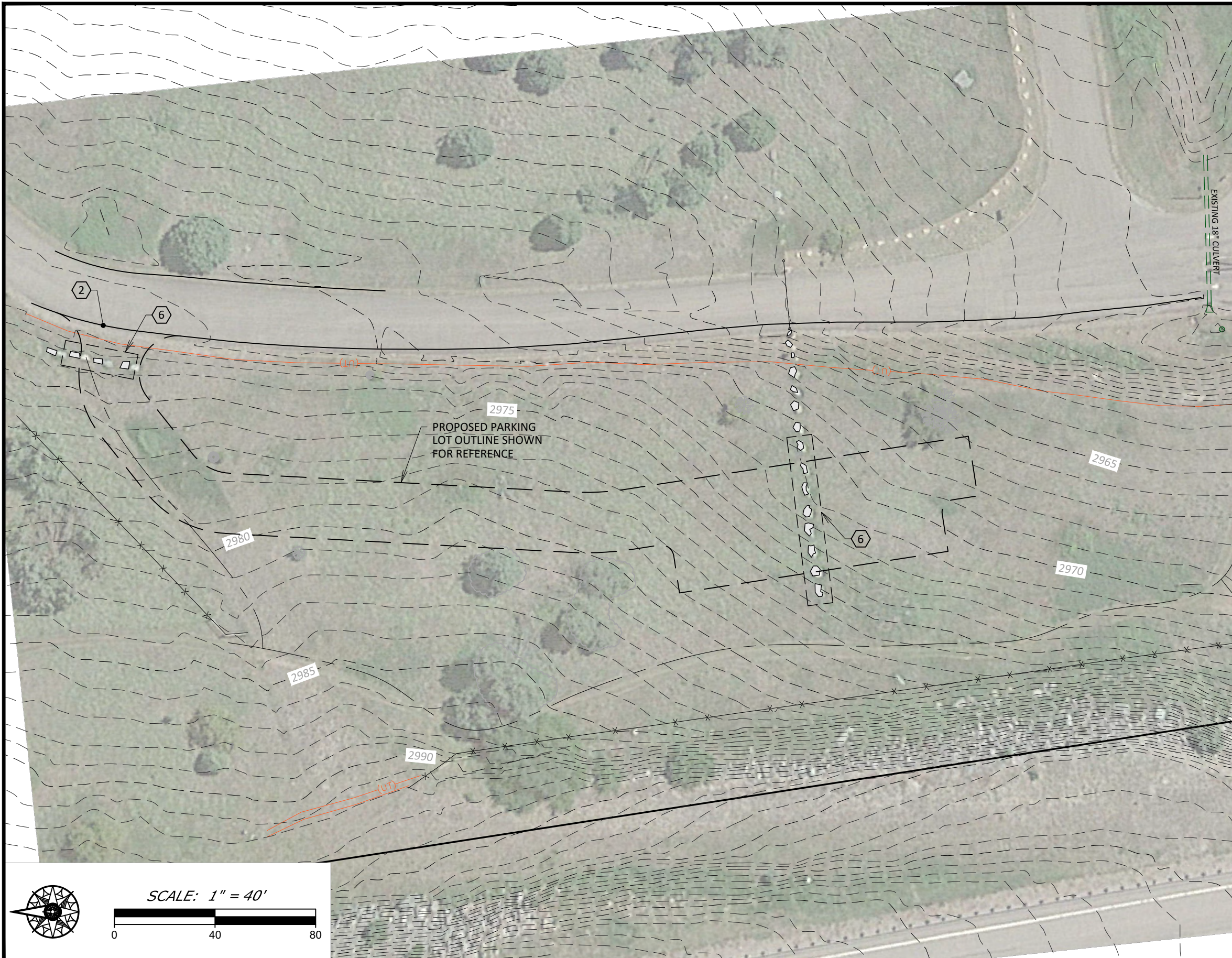
# NORTHWEST DEMO PLAN

## BIG ARM ARCHERY PROJECT



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**KEYNOTES:** #

1. NEATLY SAWCUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING ASPHALT. SAWCUT AT EXISTING SHOULDER.
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3. EXISTING SIGN TO BE REMOVED AND STORED ON-SITE. RE-INSTALL AT NEW LOCATION PER SHEET 9.
4. REMOVE EXISTING TREE/SHRUB IN IT'S ENTIRETY.
5. CUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING BARBED WIRE FENCE TO ACCOMMODATE NEW APPROACH. INSTALL H-BRACING AT FENCE TERMINATIONS AS SHOWN ON SHEET 9.
6. REMOVE AND STOCKPILE EXISTING BOULDERS FOR RE-USE.
7. REMOVE EXISTING CULVERT; RE-USE AS POSSIBLE. SLOPE FORESLOPE AND BACKSLOPE TO MATCH EXISTING ON EITHER SIDE OF CULVERT.
8. FIELD VERIFY DEPTH AND ALIGNMENT OF EXISTING UNDERGROUND PHONE PRIOR TO CONSTRUCTION.

ASPHALT REMOVAL

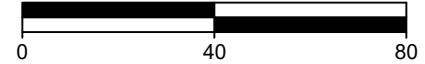
FENCE REMOVAL

**GENERAL NOTES:**

1. SLOPE SHOULDER AND FORESLOPE TO MATCH EXISTING.
2. TRANSITION GRADE FROM NEW EDGE OF ASPHALT TO SHOULDER GRADE TO ELIMINATE ABRUPT EDGE.
3. DRILL SEED DISTURBED AREA WITHIN MDT RIGHT-OF-WAY.
4. ALL DISTURBED AREAS SHALL BE COVERED IN 4" OF STOCKPILED TOPSOIL & SEEDED AT A RATE OF 10PLS LB/ACRE WITH CHS "FOREST MIX" OR EQUAL. 40% MOUNTAIN BROME, 35% BLUEBUNCH WHEATGRASS, 15% WESTERN WHEATGRASS, AND 10% ROUGH FESCUE



SCALE: 1" = 40'



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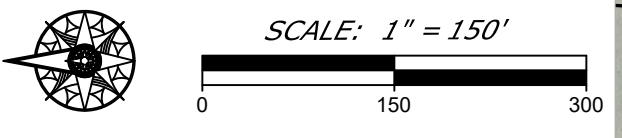
**MONTANA FISH,  
WILDLIFE & PARKS**

**NE DEMO PLAN - BID ALTERNATE  
BIG ARM ARCHERY PROJECT**



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**MONTANA FISH,  
WILDLIFE & PARKS**

**OVERALL SITE PLAN  
BIG ARM ARCHERY PROJECT**





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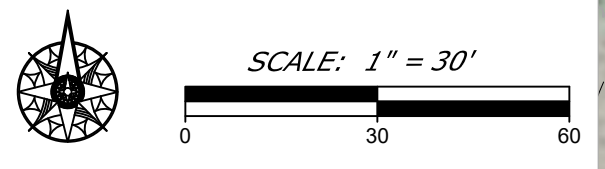
**KEYNOTES:** #

1. PRE-CAST CONCRETE VAULT LATRINE PER DTL. 1 AND 2 OF SHEETS 22 AND 23
2. ASPHALT PAVEMENT SECTION PER DTL. 1 OF SHEET 18.
3. GRAVEL PARKING SECTION PER DTL. 1 OF SHEET 18.
4. CONCRETE PAVEMENT SECTION PER DTL. 1 OF SHEET 18.
5. 4" THICK CONCRETE SIDEWALK PER DTL. 1 OF SHEET 19.
6. ADA PARKING SIGN PER DTL. 2 OF SHEET 20.
7. 8' CONCRETE WHEEL STOP PER DTL. 3 OF SHEET 18.
8. SQUARE TUBE, DOUBLE SPAN GATE PER DTL. 1 OF SHEET 20.
9. RE-INSTALL EXISTING SIGN, MATCH EXISTING INSTALLATION.
10. RELOCATED BOULDERS. ADD NEW BOULDERS ONCE EXISTING COUNT IS INSUFFICIENT. SIZE AND SPACING PER DTL. 3 OF SHEET 19.
11. 18" CMP CULVERT WITH RACET END TREATMENT PER MDT DTL. 603-14 OF SHEET 27 RE-USE EXISTING CULVERT AS POSSIBLE. MATCH SLOPE OF EXISTING DITCH.
12. SWALE PER DTL. 2 OF SHEET 21.
13. STORM POND PER DTL. 1 OF SHEET 21.
14. STORM POND OUTLET PER DTL. 3 OF SHEET 21
15. 100 AMP SINGLE-PHASE METER BASE PER DTL. 1 OF SHEET 24
16. SINGLE PANEL WOOD H-BRACING AT FENCE TERMINATION ADJACENT TO GATE PER MDT DTL. 607-05 OF SHEET 26
17. RIPRAP OUTLET PER DTL. 4 OF SHEET 21

**GENERAL NOTES:**

1. **MAIN PARKING AREA:**
  - 1.1. BASE BID: CONSTRUCT PARKING LOT PER PAVEMENT SECTION UP TO THE CRUSHED BASE COURSE ELEVATION, PROVIDE GRAVEL TRANSITION TO THE PAVED APPROACH, SIDEWALK, AND ADA PARKING. STRIPE ADA PARKING PER DTL. 2 OF SHEET 19
  - 1.2. MAIN PARKING PAVEMENT ADD ALTERNATE: CONSTRUCT 3" ASPHALT PAVEMENT PER THE PAVEMENT SECTION FOR AREAS DESIGNATED AS GRAVEL IN BASE BID, STRIPE PER DTL. 2 OF SHEET 19
2. **NE OVERFLOW PARKING:**
  - 2.1. BID ALTERNATE PARKING: CONSTRUCT OVERFLOW GRAVEL PARKING LOT TO CRUSHED BASE COURSE ELEVATION PER PLANS. INCLUDE ALL WORK NECESSARY TO COMPLETE THE WORK.
  - 2.2. BID ALTERNATE PAVEMENT: PAVE OVERFLOW PARKING LOT WITH 3" ASPHALT PER DTL. 1 OF SHEET 18.

- TP-1**  
 0-36" BROWN TOPSOIL W/ COBBLES  
 36"-78" GRAY CLAY W/ SILT & 0"-10" COBBLES  
 78" - 84" FRACTURED BEDROCK
- TP-2**  
 0-48" BROWN TOPSOIL W/ FRACTURED BEDROCK
- TP-3**  
 0-36" BROWN TOPSOIL W/ COBBLES  
 36"-60" GRAY CLAY W/ SILT & 0"-10" COBBLES  
 60" HARD BEDROCK



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**MAIN PARKING PLAN**  
**BIG ARM ARCHERY PROJECT**

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**KEYNOTES:** #

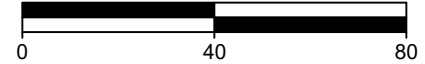
1. PRE-CAST CONCRETE VAULT LATRINE PER DTL. 1 AND 2 OF SHEETS 22 AND 23
2. ASPHALT PAVEMENT SECTION PER DTL. 1 OF SHEET 18.
3. GRAVEL PARKING SECTION PER DTL. 1 OF SHEET 18.
4. CONCRETE PAVEMENT SECTION PER DTL. 1 OF SHEET 18.
5. 4" THICK CONCRETE SIDEWALK PER DTL. 1 OF SHEET 19.
6. ADA PARKING SIGN PER DTL. 2 OF SHEET 20.
7. 8' CONCRETE WHEEL STOP PER DTL. 3 OF SHEET 18.
8. SQUARE TUBE, DOUBLE SPAN GATE PER DTL. 1 OF SHEET 20.
9. RE-INSTALL EXISTING SIGN, MATCH EXISTING INSTALLATION.
10. RELOCATED BOULDERS. ADD NEW BOULDERS ONCE EXISTING COUNT IS INSUFFICIENT. SIZE AND SPACING PER DTL. 3 OF SHEET 19.
11. 18" CMP CULVERT WITH RACET END TREATMENT PER MDT DTL. 603-14 OF SHEET 27 RE-USE EXISTING CULVERT AS POSSIBLE. MATCH SLOPE OF EXISTING DITCH.
12. SWALE PER DTL. 2 OF SHEET 21.
13. STORM POND PER DTL. 1 OF SHEET 21.
14. STORM POND OUTLET PER DTL. 3 OF SHEET 21
15. 100 AMP SINGLE-PHASE METER BASE PER DTL. 1 OF SHEET 24
16. SINGLE PANEL WOOD H-BRACING AT FENCE TERMINATION ADJACENT TO GATE PER MDT DTL. 607-05 OF SHEET 26
17. RIPRAP OUTLET PER DTL. 4 OF SHEET 21

**GENERAL NOTES:**

1. **MAIN PARKING AREA:**
  - 1.1. **BASE BID:** CONSTRUCT PARKING LOT PER PAVEMENT SECTION UP TO THE CRUSHED BASE COURSE ELEVATION, PROVIDE GRAVEL TRANSITION TO THE PAVED APPROACH, SIDEWALK, AND ADA PARKING. STRIPE ADA PARKING PER DTL. 2 OF SHEET 19
  - 1.2. **MAIN PARKING PAVEMENT ADD ALTERNATE:** CONSTRUCT 3" ASPHALT PAVEMENT PER THE PAVEMENT SECTION FOR AREAS DESIGNATED AS GRAVEL IN BASE BID, STRIPE PER DTL. 2 OF SHEET 19
2. **NE OVERFLOW PARKING:**
  - 2.1. **BID ALTERNATE PARKING:** CONSTRUCT OVERFLOW GRAVEL PARKING LOT TO CRUSHED BASE COURSE ELEVATION PER PLANS. INCLUDE ALL WORK NECESSARY TO COMPLETE THE WORK.
  - 2.2. **BID ALTERNATE PAVEMENT:** PAVE OVERFLOW PARKING LOT WITH 3" ASPHALT PER DTL. 1 OF SHEET 18.



SCALE: 1" = 40'



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**MONTANA FISH, WILDLIFE & PARKS**

**OVERFLOW PARKING - BID ALT**  
**BIG ARM ARCHERY PROJECT**



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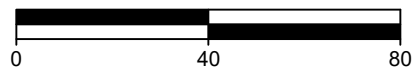
1. 10' x 10' EARTHEN SHOOTING STATION PAD SLOPE AT 2% MAX FOR STATION #1; 5% MAX FOR STATION #2-12
2. 6' x 6' EARTHEN TARGET PAD SLOPE AT 5% MAX.
3. 3' WIDE EARTHEN TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.
4. CONSTRUCT ELEVATED SHOOTING PLATFORM. REFER TO STRUCTURAL DRAWINGS.
5. 10' x 10' TARGET PAD FOR ADA ACCESSIBILITY SLOPE AT 2% MAX
6. 5' WIDE TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.

**GENERAL NOTES:**

1. PATH FROM THE SHOOTING RANGE TO STATION #1 (INCLUDING THE SHOOTING STATION, TARGET & PATH) TO BE 5' WIDE W/ GRAVEL SURFACE. TARGET AND SHOOTING STATION TO BE 2% MAX IN ALL DIRECTIONS; TRAIL TO BE 5% MAX LONGITUDINAL SLOPE
2. PATH FOR THE REMAINDER OF THE TRAIL FROM STATION #1 (INCLUDING FROM STATION PLATFORM TO TARGETS) SHALL BE 3' WIDE.



SCALE: 1" = 40'



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**MONTANA FISH, WILDLIFE & PARKS**

# SHOOTING STATION 1 PLAN

## BIG ARM ARCHERY PROJECT



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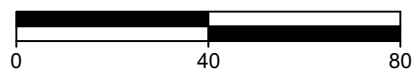
1. 10' x 10' EARTHEN SHOOTING STATION PAD SLOPE AT 2% MAX FOR STATION #1; 5% MAX FOR STATION #2-12
2. 6' x 6' EARTHEN TARGET PAD SLOPE AT 5% MAX.
3. 3' WIDE EARTHEN TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.
4. CONSTRUCT ELEVATED SHOOTING PLATFORM. REFER TO STRUCTURAL DRAWINGS.
5. 10' x 10' TARGET PAD FOR ADA ACCESSIBILITY SLOPE AT 2% MAX
6. 5' WIDE TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.

**GENERAL NOTES:**

1. PATH FROM THE SHOOTING RANGE TO STATION #1 (INCLUDING THE SHOOTING STATION, TARGET & PATH) TO BE 5' WIDE W/ GRAVEL SURFACE. TARGET AND SHOOTING STATION TO BE 2% MAX IN ALL DIRECTIONS; TRAIL TO BE 5% MAX LONGITUDINAL SLOPE
2. PATH FOR THE REMAINDER OF THE TRAIL FROM STATION #1 (INCLUDING FROM STATION PLATFORM TO TARGETS) SHALL BE 3' WIDE.



SCALE: 1" = 40'



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**MONTANA FISH, WILDLIFE & PARKS**

# SHOOTING STATIONS 2-3 PLAN

## BIG ARM ARCHERY PROJECT

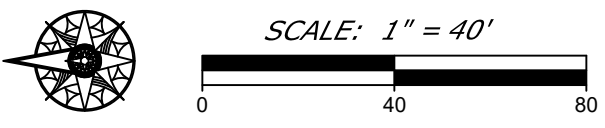


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- KEYNOTES:** #
- 10' x 10' EARTHEN SHOOTING STATION PAD SLOPE AT 2% MAX FOR STATION #1; 5% MAX FOR STATION #2-12
  - 6' x 6' EARTHEN TARGET PAD SLOPE AT 5% MAX.
  - 3' WIDE EARTHEN TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.
  - CONSTRUCT ELEVATED SHOOTING PLATFORM. REFER TO STRUCTURAL DRAWINGS.
  - 10' x 10' TARGET PAD FOR ADA ACCESSIBILITY SLOPE AT 2% MAX
  - 5' WIDE TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.
- GENERAL NOTES:**
1. PATH FROM THE SHOOTING RANGE TO STATION #1 (INCLUDING THE SHOOTING STATION, TARGET & PATH) TO BE 5' WIDE W/ GRAVEL SURFACE. TARGET AND SHOOTING STATION TO BE 2% MAX IN ALL DIRECTIONS; TRAIL TO BE 5% MAX LONGITUDINAL SLOPE
  2. PATH FOR THE REMAINDER OF THE TRAIL FROM STATION #1 (INCLUDING FROM STATION PLATFORM TO TARGETS) SHALL BE 3' WIDE.



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# SHOOTING STATIONS 4-6 PLAN

## BIG ARM ARCHERY PROJECT

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**KEYNOTES:** #

1. 10' x 10' EARTHEN SHOOTING STATION PAD SLOPE AT 2% MAX FOR STATION #1; 5% MAX FOR STATION #2-12
2. 6' x 6' EARTHEN TARGET PAD SLOPE AT 5% MAX.
3. 3' WIDE EARTHEN TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.
4. CONSTRUCT ELEVATED SHOOTING PLATFORM. REFER TO STRUCTURAL DRAWINGS.
5. 10' x 10' TARGET PAD FOR ADA ACCESSIBILITY SLOPE AT 2% MAX
6. 5' WIDE TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.

**GENERAL NOTES:**

1. PATH FROM THE SHOOTING RANGE TO STATION #1 (INCLUDING THE SHOOTING STATION, TARGET & PATH) TO BE 5' WIDE W/ GRAVEL SURFACE. TARGET AND SHOOTING STATION TO BE 2% MAX IN ALL DIRECTIONS; TRAIL TO BE 5% MAX LONGITUDINAL SLOPE
2. PATH FOR THE REMAINDER OF THE TRAIL FROM STATION #1 (INCLUDING FROM STATION PLATFORM TO TARGETS) SHALL BE 3' WIDE.



SCALE: 1" = 40'



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**MONTANA FISH, WILDLIFE & PARKS**

# SHOOTING STATIONS 7-9 PLAN

## BIG ARM ARCHERY PROJECT



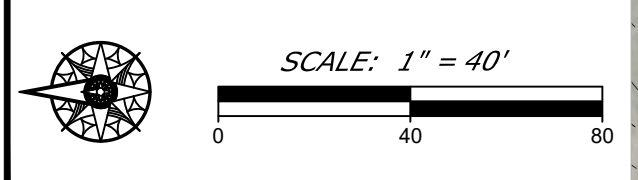
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- KEYNOTES:** #
- 10' x 10' EARTHEN SHOOTING STATION PAD SLOPE AT 2% MAX FOR STATION #1; 5% MAX FOR STATION #2-12
  - 6' x 6' EARTHEN TARGET PAD SLOPE AT 5% MAX.
  - 3' WIDE EARTHEN TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.
  - CONSTRUCT ELEVATED SHOOTING PLATFORM. REFER TO STRUCTURAL DRAWINGS.
  - 10' x 10' TARGET PAD FOR ADA ACCESSIBILITY SLOPE AT 2% MAX
  - 5' WIDE TRAIL PER DTL 2 OF SHEET 18. CONNECT THE TARGETS AND SHOOTING PADS TO THE MAIN TRAIL.

- GENERAL NOTES:**
1. PATH FROM THE SHOOTING RANGE TO STATION #1 (INCLUDING THE SHOOTING STATION, TARGET & PATH) TO BE 5' WIDE W/ GRAVEL SURFACE. TARGET AND SHOOTING STATION TO BE 2% MAX IN ALL DIRECTIONS; TRAIL TO BE 5% MAX LONGITUDINAL SLOPE
  2. PATH FOR THE REMAINDER OF THE TRAIL FROM STATION #1 (INCLUDING FROM STATION PLATFORM TO TARGETS) SHALL BE 3' WIDE.



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# SHOOTING STATIONS 10-12 PLAN

## BIG ARM ARCHERY PROJECT

