

**Montana Fish, Wildlife & Parks**

**SPECIFICATIONS FOR WORK  
TECHNICAL PROVISIONS**

**Incorporation of Montana Public Works Technical Specifications.**

The Technical Specifications as found in Montana Public Works Standard Specifications (MPWSS), Seventh Edition, and/or current Addendums or Revisions; are hereby incorporated by reference and made a part of this Contract:

**Incorporation of Montana Fish, Wildlife & Parks Technical Specifications and Modifications to MPWSS Technical Specifications.**

In addition to the MPWSS Technical Specifications are the following Montana Fish, Wildlife & Parks Technical Specifications (modifications to MPWSS Technical Specifications).

- SECTION 01010 - Summary of Work
- SECTION 01450 - Mobilization
- SECTION 01750 - Final Cleanup
- SECTION 02112 - Removal of Structures
- SECTION 02810 - Fencing

## SECTION 01010 - SUMMARY OF WORK

### **PART 1 GENERAL**

#### 1.1 SECTION INCLUDES

- A. Owner and Contractor Responsibilities
- B. Contractor use of site and premises.
- C. Scope of Work

#### 1.2 Owner and Contractor Responsibilities

- A. Owners Responsibilities:
  - 1. Responding to project questions.
  - 2. Final Acceptance and inspections.
  - 3. Submittal and material review.
  - 4. Measurement and Payment of Fencing.
  - 5. Furnishing Boundary Signs
- B. Contractors Responsibilities:
  - 1. Furnishing of all equipment and material to complete work as bid.
  - 2. Quality control of work.
  - 3. Completion of project as bid.
  - 4. Coordination with FWP Personnel.

#### 1.3 CONTRACTOR USE OF SITE

- A. **Contractor work window is from Summer 2026.**
- B. Limit use of site to allow:
  - 1. Coordinate with FWP to limit public usage in work areas as necessary.

#### 1.4 SCOPE OF WORK

A. Project Objective: This project generally includes the installation of 28,340 linear feet (5.37 miles) of 4-wire suspension fencing, gates, and braces at the boundaries of the Robb-Ledford WMA. The project also includes 28,340 linear feet (5.37 miles) of fence removal and all braces and gates necessary for the construction of the new fence.

B. Scope of Work:

Work includes the following but is not limited to the general description contained herein:

**1. Mobilization**

- ◆ General: This bid item shall include the costs associated with mobilizing to the project site, insurance, bonding, permitting, and submittals.
- ◆ Work Included:
  - All labor, tools, equipment, materials, royalties, and incidentals needed to complete the work as specified;
  - Transport and set up all equipment, materials, and other items needed to complete the project;
  - All permits, coordination, and compliance inspections required for the work;
  - Installation of all BMP's and BMP plans;
  - Insurance and bonding;
  - Prepare and provide submittals, construction schedule, and all other paperwork required by the contract documents prior to construction startup.
- ◆ Measurement: No measurement shall be taken for this item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal on the schedule shown in Section 01450.

**2. Remove Fence**

- ◆ General: This bid item shall include the costs associated with removal and disposal of all existing fencing materials
- ◆ Work Included:
  - Coordination of fence removal to ensure cattle do not have access to any pastures during fence removal
  - Coordination to remove fence after new fence is installed to ensure active grazing pastures are fenced throughout the project.
  - Ensuring no portions of fence line are left open overnight. Coordinate fence removal to only remove as much as can be fenced during the same working day.
  - Removal of all fence wire, posts, and braces.
  - Proper disposal of all steel fencing materials and wood fence materials

- ◆ Measurement: Measurement shall be taken per linear foot of fence removed.
- ◆ Payment: Payment shall be by the price bid per linear foot “Fence Removal” as listed in the proposal.

**3. 4-Wire Fence**

- ◆ General: This bid item shall include the installation of 4-wire suspension fence.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified.
  - Transporting all materials to lines for installation. This work shall include incorporation of new fence line into existing fence elements recently installed at WMA entrance.
  - Completion of fence as specified in SECTION 02810.
  - Fence installed according to plans and details.
- ◆ Measurement: Measurement shall be taken per linear foot of fence installed including braces and stream crossings, but exclusive of gates.
- ◆ Payment: Payment shall be by the price bid per linear foot “4-Wire Fence” as listed in the proposal.

**4. 12’ 4-Wire Gate**

- ◆ General: This bid item shall include the installation of 12’ 4-Wire Gates.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified.
  - Completion of gate installation as specified in SECTION 02810.
  - Wire Gates installed according to plans and details.
- ◆ Measurement: Measurement shall be taken per gate installed.

- ◆ Payment: Payment shall be by the price bid per “12’ 4-Wire Gate” as listed in the proposal.

## 5. 20’ 4-Wire Gate

- ◆ General: This bid item shall include the installation of 20’ 4-Wire Gates.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified.
  - Completion of gate installation as specified in SECTION 02810.
  - Wire Gates installed according to plans and details.
- ◆ Measurement: Measurement shall be taken per gate installed.
- ◆ Payment: Payment shall be by the price bid per “20’ 4-Wire Gate” as listed in the proposal.

## 6. Corner

- ◆ General: This bid item shall include the installation of Corners.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified.
  - Completion of fence bracing as specified in SECTION 02810.
  - Appropriate brace based on Table 1 in Section 02810.
  - Fence bracing installed according to plans and details.
  - Ensuring Braces at end of each run, at gates, stream crossings and a minimum of 30 rods apart.
- ◆ Measurement: Measurement shall be taken per corner installed.
- ◆ Payment: Payment shall be by the price bid per “Corner” as listed in the proposal.

## 7. Steel Brace Panel

- ◆ General: This bid item shall include the installation of Steel Brace Panels.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified.
  - Completion of fence bracing as specified in SECTION 02810.
  - Appropriate brace based on Table 1 in Section 02810.
  - Fence bracing installed according to plans and details.
  - Ensuring Braces at end of each run, at gates, stream crossings and a minimum of 30 rods apart.
- ◆ Measurement: Measurement shall be taken per brace installed.
- ◆ Payment: Payment shall be by the price bid per “Steel Brace Panel” as listed in the proposal.

C. CONTRACTS:

All work shall be done under one general contract provided by the Montana Department of Fish Wildlife and Parks Design and Construction.

D. PROPOSAL:

1. Proposal shall include all costs to complete the work as described in the plans and specifications, utility locates, required insurance costs and 1% MDOR Contractor Gross Receipts Tax of 1%.

END OF SECTION

**SECTION 01450**

**MOBILIZATION/DEMOBILIZATION**

Added Section.

**PART 1                    GENERAL**

**1.1    DESCRIPTION**

- A. This item shall consist of the preparatory work and operations necessary performed by the Contractor for the movement of personnel, equipment, supplies, and incidentals to and from the work site. The work includes those actions necessary for obtaining necessary permits required for mobilization; for the establishment of all offices and facilities necessary to work on the project; for premiums on contract bonds; for insurance for the contract; and for other work on the various items on the project site. Mobilization costs for subcontracted work shall be considered to be included.
- B. Contractor's cost for administration, bonding, insurance, and site documents shall be included in mobilization and shall not be paid as a separate item.
- C. All equipment moved to the project sites shall be in good mechanical condition and free of fuel, oil, lubrication, or other fuel leaks. The Contractor shall immediately remove any equipment potentially or actually discharging environmentally damaging fluids.
- D. All equipment moved to the project sites shall be thoroughly cleaned before it is brought to the sites to prevent the introduction of weed seeds. Equipment removed from the sites may not be returned to the sites again until it is thoroughly cleaned again.

**PART 2                    PRODUCTS – NOT USED**

**PART 3                    EXECUTION – NOT USED**

**PART 4                    MEASUREMENT AND PAYMENT**

**4.1    MEASUREMENT**

- A. There will be no direct measurement of this item.

**4.2    PAYMENT**

- B. Partial payments for mobilization/demobilization will be made based on the lump sum bid price as follows:

- 25% of the amount bid for mobilization/demobilization when the Contractor has moved on-site and begun construction activities.
- 50% of the amount bid for mobilization/demobilization when 25% of the contract amount (exclusive mobilization/demobilization) has been completed.
- 75% of the amount bid for mobilization/demobilization when 50% of the contract amount (exclusive mobilization/demobilization) has been completed.
- 100% of the amount bid for mobilization/demobilization when 75% of the contract amount (exclusive mobilization/demobilization) has been completed.

**END OF SECTION 01450**



**SECTION 01750**  
**FINAL CLEANUP**

Added Section.

**PART 1                    GENERAL**

1.1    DESCRIPTION

A.     This work consists of final cleanup of the project site prior to final acceptance.

**PART 2                    PRODUCTS – NOT USED**

**PART 3                    EXECUTION**

3.1    CONTRACTOR RESPONSIBILITIES

The contractor shall be responsible for final cleanup at the end of the project to a level satisfactory to the owner. All construction debris, no matter how small, shall be collected and removed from the site. All wheel ruts shall be filled in and be leveled to match the adjacent grade and material. Re-seeding or re-sodding, or other re-surfacing may be necessary to repair any construction related impacts or damage.

All survey markings, stakes, temporary paint marks, flagging and other devices shall be removed regardless of who installed them. All excess pavement, concrete, gravel, soil, or other construction materials not intended for permanent use shall be removed.

**For boundary fencing projects, do not disturb line-of-sight t-posts. Leave all line-of-sight t-posts in their original location.**

All final slopes shall be dressed manually to remove woody debris, accumulated trash and oversized material. Any new slope or topsoil surfaces shall be hand raked to provide a uniform appearance. The contractor shall dress all gravel, pavement and concrete edges to eliminate abrupt edges and provide a smooth transition. All construction related temporary sediment control devices shall be removed as soon as practical.

**PART 4                    MEASUREMENT AND PAYMENT**

4.1    PAYMENT

Unless specifically noted otherwise, all final cleanup work shall be incidental to other work items in the contract and no separate payment shall be made.

**END OF SECTION 01750**

## SECTION 02112

### REMOVAL OF EXISTING PAVEMENT, CONCRETE CURB, SIDEWALK, DRIVEWAY AND/OR STRUCTURES

All applicable portions of this specification section in the MPWSS shall apply with the following additions, deletions and/or modifications.

#### PART 1 GENERAL

##### 1.1 DESCRIPTION

A. Add the following:

The work also consists of the removal, salvage, stockpile, and/or disposal of existing fence materials on private property and within, or near, the FWP WMA property boundary.

#### PART 3 EXECUTION

Add the following:

##### 3.2 EXISTING FENCE WIRE REMOVAL

- A. Remove and dispose of all existing boundary fence wire and wood posts and braces as directed by the Project Representative. All removed metal fencing material becomes property of the Contractor. Dispose all removed metal fencing material off the project site and obey all state, county, and local disposal restrictions and regulations.

##### 3.3 EXISTING FENCE METAL POST REMOVAL AND/OR SALVAGE

- A. Remove all existing boundary fence metal posts.

No salvaged posts will be permitted for use as line posts. Salvaged t-posts are permitted to be used in deadman anchors and brace tighteners.

Removed Metal posts become property of the Contractor. Dispose all Metal posts off the project site and obey all state, county, and local disposal restrictions and regulations. Non-salvageable Metal posts may be used in Deadman applications.

##### 3.4 EXISTING FENCE WOOD POST REMOVAL

For existing boundary fence **treated and non-treated** wood posts *on FWP property*, remove wood posts dispose off the project site and obey all state, county, and local disposal restrictions and regulations.

**PART 4                      MEASUREMENT AND PAYMENT**

Add the following:

4.3A FENCE REMOVAL

- A. Fence removal will be measured and paid for by the linear foot (LF).

**END OF SECTION 02112**

## SECTION 02810

### FENCING

Added Section.

#### PART 1 GENERAL

##### 1.1 DESCRIPTION

- A. This work consists of furnishing, erection, and placement of new fencing per the drawings and specifications.

#### PART 2 PRODUCTS

##### 2.1 GENERAL

- A. Barbed wire shall be zinc or Bezinal® and Paint coated, steel barbed wire. The breaking strength of strand wire shall be not less than 1259 pounds. Barbs shall be uniformly spaced 5 inches apart. Minimum weight of zinc coating, if used, shall be Class I. Wire shall consist of two twisted strands of 14 gage high tensile strands. Use "Bakaert's high tension Cattleman Pro" or approved equal. **Wire breaking strength and coating certification shall be provided to the Project Manager.**
- B. Brace panel wire shall be barbless, smooth 9 gage **soft** wire meeting requirements of ASTM A-641 or two twisted strands of 12 1/2 gage strands. It will be used for constructing braces and panels, tying to anchors, etc.
- C. Staples. Wire staples of the barbed U-shaped type shall be used to fasten the wire fencing to the wooden posts. They shall be not less than 9 gage galvanized, 1-3/4 inches long.
- D. Nails. Shall be 40 d common galvanized.
- E. Fence clips shall be lay down clips manufactured by Tincup Creek Fence; Freedom Wyoming or approved equal. They shall be used to fasten the wire to metal posts.
- F. Metal Posts. Metal posts shall meet the requirements of ASTM A-702 and be American manufactured. Painting shall be in accordance with good manufacturing practice. Same paint pattern shall be used throughout project site requiring installation of new metal posts. Posts shall be 5-1/2 feet long. The metal shall be good commercial quality steel with maximum carbon content of 0.82%. Posts shall be Tee section and shall have corrugations, knobs, notches, holes, or studs so placed and constructed as to engage a substantial number of fence line wires in proper position.

Each line post shall have a steel anchor plate weighing not less than 0.67 pounds, tapered to facilitate driving and securely fastened in such a position that its top edge will be two to three inches below ground when the post is driven to the prescribed depth. Post shall weigh 1.33 lbs. per L.F. of post.

- G. Wood Posts and Wood Brace Rail. Wood Posts and wood brace rail shall be made from western larch, lodge pole pine, ponderosa pine, or Douglas-fir. They shall have the bark removed, be well seasoned, sound, and straight-grained. They shall be finished round. **Posts shall be 5 inch** minimum diameter and **7 feet in length** or as specified in the project drawings. All posts shall be treated with a solution conforming to AWPA standards. Penetration shall be at least 1/2 inch. Post shall be fully treated. Posts that are to be driven shall be tapered and treated. **Brace rail** shall be a minimum **4-inch** diameter by **8** feet long, or as specified in the project drawings. All brace rail shall be fully treated conforming to AWPA standards. **Certification of AWPA treatment shall be provided to the Project Manager.**
- H. Stays shall be No-ClipZ stays as manufactured by Gateway Arch & Fence Company, Bozeman Montana or approved equal.
- I. Metal brace panels and line posts shall be constructed with a minimum 2-7/8" diameter with a minimum length of 8'. Brace rails shall be 1-5/8" diameter pipe or as approved by the Engineer. Connections shall be mechanical as approved of by the engineer.
- J. Brace Panels. Shall be placed at corners, endpoints and when run exceeds 30 **rods**. Brace panels shall be constructed as depicted in drawings and shall provide for strong anchorage points and shall aligned with fence line within a tolerance of 2 degrees.
- K. Gates and Single Panels. Gates shall by 12'-20' wide and shall be located in the field by the Engineer. Post and brace rail shall be the same as specified for line fence panels and corners.  
Where designated, wire gates shall have 4 strands of barbwire with 3 wood stays. Stays shall be minimum 3" diameter wood. Each gate shall have a new single panel on each side and a mechanical over-center gate closer. Wire gates in jackleg fences shall have four strands of barbed wire. Posts and brace rails shall be the same as specified for line fence panels and corners.
- L. Minor Drainage Channels are differentiated from depressions by having sandy gravel or cobble bottoms. Such channels may or may not have flowing water year-round. Minor channels may be fenced over without a stream crossing gate at the discretion of the Project Manager. Such channels shall have NO POSTS placed in the channel, and posts on either side shall be equally spaced from the edge of the channel. A deadman anchor system with a plate or disc of 10 gauge or thicker mild steel of 12-inch diameter hung under the fence at the channel in a manner to prevent livestock passage.

- M. Deadman anchors shall be used at grade depressions. They shall consist of a plate or disc of 10 gauge or thicker mild steel of 12-inch diameter. A No. 5 rebar shall be welded in the center and a loop formed in the other end to accept the tie wire. Rebar length shall be 30 inches after the loop is formed.

Alternately, two steel fence posts may be driven in the ground at an angle such that the ends above the ground cross at the low point. Wire shall be securely attached to the two posts and used to anchor the fence. Duckbill anchors are also approved. Other anchor types may be accepted upon approval of the Engineer or Project Manager.

Anchor wires shall be tied such that all wire is above the soil surface. No anchor wire shall be buried. If any part of the deadman projects out from the fence line above ground, it shall be cut off no more than 4" from the anchor wire attachment. No sharp edges shall remain on cut ends.

- N. Exterior boundary fences shall have owner-supplied 4" x 12" boundary signs attached no more than 500 feet apart and 2 at every corner panel. Signs shall be securely fastened to posts, rails or between fence wires as determined by the project Manager. Additional owner-supplied 12" x 18" aluminum signs shall be installed at all exterior gates and corners where designated by the Project Manager. The cost of installing such signs shall be subsidiary to the project and shall not constitute a pay item and shall be considered incidental thereto and no payment shall be made for it.

## **PART 3 EXECUTION**

### **3.1 CLEARING AND GRUBBING**

- A. "Clearing" shall consist of the falling of trees greater than 3 inches diameter breast height (dwb), delimiting them, and cutting into six-foot sections. Clearing shall also include the disposal of stumps, brush, windfalls, limbs, sticks, piles of sawdust, rubbish, debris, vegetation, and other objectionable material occurring within the clearing limits or which interfere with excavation or embankment.
- B. "Grubbing" shall consist of the removal from the ground and the disposal of roots, stumps, together with duff, matter, roots, and debris from the grubbing limits.
- C. Construction methods for clearing and grubbing operations are as follows:
- (1) No stumps or roots shall remain more than 4 inches above the ground along the fence line.
  - (2) Low hanging branches and unsound or unsightly branches on trees or shrubs designated to remain shall be removed as directed. Branches of trees extending over the fence line shall be trimmed to give a clear height of 8 feet above the ground along the fence line. Width of clearing for fence line shall be 4 feet.

### 3.2 FENCE INSTALLATION

- A. Post holes and excavations for footings and anchors shall be excavated on the lines established by the Engineer to the depths and cross-sections shown on the standard drawings. Wooden posts may be driven when so prepared and any damaged posts shall be repaired or rejected. Post shall be plumb when set. **All fence post hole excavations shall be on FWP property or easement, 12” from the surveyed property line, marker, or monument.** Do not disturb any survey property corner monument or marker during fence installation. Leave all line-of-sight marker t-posts in place.
- B. All posthole filling and backfilling work shall be in six-inch layers and each layer shall be solidly tamped and compacted as it is placed.
- C. Posts that are cut or trimmed for any valid reason shall be given two coats of preservative material approved by the Engineer. Braces shall be securely nailed to terminal and brace posts. Brace to post joint shall be coped or notched. No square to round joint accepted.
- D. Deadmen or anchors will be used at grade depressions or other places where the vertical space from the ground to the bottom fence wire has exceeded the design value within a one rod distance.  
 In such situations where the bottom of the depression is an intermittent stream channel with a sandy gravel or cobble bottom or an active ditch, the depressions shall be treated as a Minor Drainage Channel. Such channels shall have NO POSTS PLACED IN THE CHANNEL, and posts on either side shall be equally spaced from the edge of the channel.
- E. Brace panels shall be installed at angle points, corners, gates, or wherever a break in the terrain occurs. However, in no case shall brace panels be more than **30 rods apart.** See Table 1 for brace panel installation requirements. One strand of brace wire will be used in accordance to standard drawing. Brace wire shall be tight when twisted. Barbwire fence wire shall be tied off at each brace.

*Table 1. Brace Panel Installation Requirements*

Panel Type	No. of Panels	Location Applications	
		Horizontal	Vertical
Single (two post panel)	1	In Line, Each side of gates	Constant Grade
Double (three post panel)	2	<90° Corners	Grade Breaks < 45°

- F. All posts shall be plumb and solidly set in place after backfilling or driving has been completed.

- G. Stretching by a motor vehicle will not be permitted; the power must be by or through a mechanical stretcher or device designed for such use.
- H. Fence line shall be straight and square between corner points.
- I. Fence clips shall be applied with the tools and in a manner recommended by the manufacturer.
- J. Tension shall be applied in accordance with wire manufacturer's recommendations.
- K. Fence wire shall be wrapped around terminal posts and fastened to itself with at least four turns. Fence wire, in general, shall be placed on the side of the post opposite the site but on curves shall be placed so the force is against the post. At grade depressions and alignment angles, where stresses tending to pull posts from the ground are created, the wire fence shall be snubbed or guyed at the critical points by brace wire attached to each horizontal line of fence wire and the end of the combined strands being firmly attached to a "deadman" buried not less than two feet in the ground, or to an approved "anchor" at a point which will serve best to resist the pull of the wire fence. "Deadman" also may be fastened to posts. Fence wire and brace wire shall be installed without nicks or significant abrasions. Nicks or abrasions that may lead to pre-mature wire breaks shall be rejected by the Project Manager and replaced at no cost by the Contractor.
- L. U-shaped staples shall be driven diagonally across the wood grain so that both points do not enter between the same grain. In depressions where wire up-lift occurs, staples shall be sloped slightly upward, against the pull of the wire. On level ground and over knolls, staples shall be sloped slightly downward. Wire shall be stapled tightly at corner, end, and pull posts. In no case shall staples be driven so tight as to damage the wire.
- M. A cross-fence, not the property of the Owner, shall not be fastened to the Owner's fence but shall be terminated, in a workmanlike manner, adjacent thereto.
- N. Upon completion, the fence shall be true to line and grade; all posts shall be vertical and firm and all wire shall be taut and the completed fence shall be completely acceptable in all respects; no openings shall be left that will permit stock or other large animals to pass through the fence.
- O. Exterior boundary fences shall have owner-supplied 4" x 12" boundary signs attached no more than 500 feet apart and 2 at every corner panel. Signs shall be securely fastened to posts, rails or between fence wires as determined by the Project Manager.

Additional owner-supplied 12" x 18" aluminum signs shall be installed at all exterior gates and corners where designated by the Project Manager. The cost of installing such signs shall be subsidiary to the project and shall not constitute a pay item and shall be considered incidental thereto and no payment shall be made for it.



- P. Weed Control: All equipment used during construction shall be thoroughly washed both inside, outside, underneath, pickup boxes, trailer's, trucks, etc. before entrance to the project area. Vehicles used to commute to and from job site shall be kept clean as not to transport weed seed to project area. This cost shall be subsidiary to the project and considered incidental thereto and no payment shall be made for it.

## **PART 4 MEASUREMENT AND PAYMENT**

### **4.1 BASIS OF MEASUREMENT**

- A. All types of fences will be measured by the linear foot complete in place, on its actual alignment. The measurement will be made on the fence line along the ground, from end post to end post, including wing fences to structures, the intent being to measure the actual length of fence in place. If it is necessary, in crossing depressions, to install a double section of fence, vertically, this extra section will be measured for payment.
- B. Gates will be measured on a per each basis, excluding brace panels.
- C. Deadman anchors and any line clearing required shall be subsidiary to the fence and considered incidental thereto.
- D. Brace panels will be measured on a per each basis.
- E. Single Leg End Panels shall be measured on a per each basis.
- F. Corners as shown on the plans shall be measured on a per each basis.

### **4.2 BASIS OF PAYMENT**

- A. All types of fence shall be paid for per foot basis, measured as specified above.
- B. Gates will be paid for on a unit price per each basis.
- C. Brace panels will be paid on a unit price per each basis.
- D. Corners shall be paid on a unit price per each basis.
- E. Single Leg End Panels shall be paid on a unit price per each.

**END OF SECTION 02810**