

Montana Fish, Wildlife & Parks

SPECIFICATIONS FOR WORK SPECIAL PROVISIONS

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1. PROJECT DESCRIPTION

The Project involves construction work associated with:

**Big Snowy Mountains WMA 2024 Fencing
Fish, Wildlife & Parks (FWP) project # FWP 75862
Located in Golden Valley County, MT**

This project generally includes the installation of 14.25 miles of 3-wire suspension fencing at the boundaries of Big Snowy Mountains WMA. The project also includes 13.25 miles of fence removal and all braces and gates necessary for the construction of the new fence.

2. PROJECT RELATED CONTACTS

Project contacts are designated as follows:

Owner:

Montana FWP
1420 E. Sixth Ave.
PO Box 200701
Helena, MT 59620-0701

FWP Project Representative:

Tom Mannatt
FWP Project Manager
1522 Ninth Avenue
Helena, MT 59620
406-841-4006 (wk)
406-841-4004 (fax)

3. SITE INSPECTION

All Bidders should satisfy themselves as to the construction conditions by personal examination of the site described in this document. Bidders are encouraged to make any - investigations necessary to assess the nature of the construction and the difficulties to be encountered, see General Conditions, Article 3.

4. SOILS INFORMATION

Geotechnical investigation work has not been done for this Project. It is the responsibility of the Bidders to conduct all investigations and determine the soil type and digging conditions that may be encountered with this Project prior to bid preparation, see General Conditions, Article 3.

5. PROJECT REPRESENTATIVE, INSPECTIONS, AND TESTING

The Contractor's work will be periodically tested and observed to insure compliance with the Contract Documents. Complete payment will not be made until the Contractor has demonstrated that the work is complete and has been performed as required. If the Project Representative detects a discrepancy between the work and the requirements of

the Contract Documents at any time, up to and including final inspection, such work will not be completely paid for until the Contractor has corrected the deficiency, see General Conditions, Article 9.

The Project Representative will periodically monitor the construction of work to determine if the work is being performed in accordance with the contract requirements. The Project Representative does not have the authority or means to control the Contractor's methods of construction. It is, therefore, the Contractor's responsibility to utilize all methods, equipment, personnel, and other means necessary to assure that the work is installed in compliance with the Drawings and Specifications, and laws and regulations applicable to the work. Any discrepancies noted shall be brought to the Contractor's attention, who shall immediately correct the discrepancy. Failure of the Project Representative to detect a discrepancy will not relieve the Contractor of his ultimate responsibility to perform the work as required, see General Conditions, Article 3.

The Contractor shall inspect the work as it is being performed. Any deviation from the Contract requirements shall be immediately corrected. Prior to any scheduled observation by the Project Representative, the Contractor shall again inspect the work and certify to the Project Representative that he has inspected the work and it meets the requirements of the Contract Documents. The Project Representative may require uncovering of work to verify the work was installed according to the contract documents, see General Conditions, Article 12.

The work will be subject to review by the Project Representative. The results of all such observations, and all contract administration, shall be directed to the Contractor only through the Project Representative.

5.1 Services Required by the Contractor. The Contractor shall provide the following services:

- a. Any field surveys to establish locations, elevations, and alignments as stipulated on the Contract Documents. FWP reserves the right to set preliminary construction staking for the project. The Contractor is responsible to notify FWP for any construction staking discrepancies.
- b. Preparation and certification of all required shop drawings and submittals as described in the General Conditions, Article 3.
- c. All testing requiring the services of a laboratory to determine compliance with the Contract Documents shall be performed by an independent commercial testing laboratory acceptable to the Project Representative. The laboratory shall be staffed with experienced technicians properly equipped, and fully qualified to perform the tests in accordance with the specified standards.
- d. Preparation and submittal of a construction schedule, including submittals, see General Conditions, Article 3. The schedule shall be updated as required, as defined in the Contract Documents.

- e. All Quality Control testing as required by the Contractor's internal policies.
- f. All Quality Assurance testing and/or re-testing as stated in the Contract Documents, see General Conditions, Article 13.

5.2 Services Provided by the Owner. The Owner shall provide the following services at no cost to the Contractor except as required for retests as defined in the Contract Documents.

- a. The Project Representative may check compaction of backfill and surfacing courses using laboratory testing submittal information supplied by the Contractor. These tests are to determine if compaction requirements are being fulfilled in accordance with the Contract Documents. It is ultimately the responsibility of the Contractor to insure that this level of compaction is constant and met in all locations.
- b. Any additional Quality Assurance testing deemed appropriate by the Owner, at the Owner's expense.

6. ENGINEERING INTERPRETATIONS

Timely Engineering decisions on construction activities or results have an important bearing on the Contractor's schedule. When engineering interpretation affects a plan design or specifications change, it should be realized that more than 24 hours may be required to gain the necessary Owner participation in the decision process including time for formal work directive, or change order preparation as required.

7. REJECTED WORK

Any defective work or nonconforming materials or equipment that may be discovered at any time prior to the expiration of the warranty period, shall be removed and replaced with work or materials conforming to the provisions of the Contract Documents, see General Conditions, Article 12. Failure on the part of the Project Representative to condemn or reject bad or inferior work, or to note nonconforming materials or equipment on the Contractor's submittals, shall not be construed to imply acceptance of such work. The Owner shall reserve and retain all its rights and remedies at law against the Contractor and its Surety for correction of any and all latent defects discovered after the guarantee period (MCA 27-2-208).

Only the Project Representative will have the authority to reject work which does not conform to the Contract Documents.

8. UTILITIES

The exact locations of existing utilities that may conflict with the work are not precisely known. It shall be the Contractor's responsibility to contact the owners of the respective utilities and arrange for field location services. **One Call Locators, 1-800-424-5555**

The Contract Documents may show utility locations based on limited field observation and information provided to the Project Representative by others. **The Project Representative cannot guarantee their accuracy.** The Contractor shall immediately notify the Project Representative of any discrepancies with utility locations as shown on the Contract Drawings and/or their bury depths that may in any way affect the intent of construction as scoped in these specifications.

There will be no separate payment for exploratory excavation required to locate underground utilities.

- 8.1 Notification. The Contractor shall contact, in writing, all public and private utility companies that may have utilities encountered during excavation. The notification includes the following information:
- a. The nature of the work that the Contractor will be performing.
 - b. The time, date and location that the Contractor will be performing work that may conflict with the utility.
 - c. The nature of work that the utility will be required to perform such as moving a power pole, supporting a pole or underground cable, etc.
 - d. Requests for field location and identification of utilities.

A copy of the letter of notification shall be provided to the Project Representative. During the course of construction, the Contractor shall keep the utility companies notified of any change in schedule, or nature of work that differs from the original notification.

- 8.2 Identification. All utilities that may conflict with the work shall be the Contractor's responsibility to locate before any excavation is performed. Field markings provided by the utility companies shall be preserved by the Contractor until actual excavation commences. All utility locations on the Drawings should be considered approximate and should be verified in the field by the Contractor. The Contractor shall also be responsible for locating all utilities that are not located on the Drawings.

Utilities are depicted on the Contract Documents in accordance with their achieved "Quality Levels," as defined in the American Society of Civil Engineer's Document, ASCE 38, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data." Reliance upon these data for risk management purposes during bidding does not relieve the Contractor, or Utility Owner from following all applicable utility damage prevention statutes, policies, and/or procedures during construction. It is important that the Contractor investigates and understands the scope of work between the project Owner and Engineer regarding scope of limits of the utility investigations leading to these utility depictions. Definitions of Quality Levels are described as follows:

- a. "QUALITY LEVEL A" – (QLA): LOCATING THROUGH EXCAVATION. QLA data are highly accurate and are obtained by surveying an exposed utility. As such, both horizontal and vertical data are recorded. Survey accuracies are typically set at 15mm (1/2-inch) vertically, and to project survey standards horizontally (typically the same as for topography features), although these survey accuracies and precisions are generally left to the owner to specify in a scope of work. In addition to the applicable standard of care and any other additional standards imposed by commercial indemnity clauses, the accuracy of these location data is also typically guaranteed. Other data typically characterized include material type, surface elevation, utility size/capacity, outside dimensions, and configurations, soil type, and utility condition.
- b. "QUALITY LEVEL B" – (QLB): DESIGNATING. QLB information is obtained through the application of appropriate surface geophysical methods to identify the existence and approximate horizontal location of utilities (a utility's "designation") within the project limits, followed by survey, mapping, and professional review of that designation. Underground utilities are identified by interpretation of received signals generated either actively or passively, and through correlating these received signals with visible objects (QLC) and record data (QLD) to determine function. Designated utilities that can't be identified are labeled as "unknowns." Although approximate has no accuracy associated with it, generally the locations are within inches rather than feet. The more utility congested the area or the deeper the utilities, the less likely it is that the designations will achieve that accuracy. These designations are then surveyed to project accuracies and precisions, typically third-order accuracy similar to other topography features. Note that surveying existing one-call marks does not lead to QLB data, since the genesis of the marks was not under the direct responsible charge of the professional certifying the QLB depictions, and one-call generally does not address unknown utilities, privately owned utilities, utilities without records, abandoned utilities, and so on. Nor does the professional have knowledge of the field technician's qualifications, training, and level of effort.
- c. "QUALITY LEVEL C" – (QLC): SURFACE VISIBLE FEATURE SURVEY. QLC builds upon the QLD information by adding an independent detailed topography site survey for surface-visible appurtenances of subsurface utilities including but not limited to fire hydrants, valves, risers, and manholes. Professional judgment is used to correlate the QLD data to the surveyed features, thus increasing the reliability of both utility location and existence. It is a function of the professional to determine when records and features do not agree and resolve discrepancies. This may be accomplished by depiction of a utility line at quality level D, effectively bypassing or

disregarding (but still depicting) a surveyed structure of unknown origin. Additional resolution may result from consultation with utility owners.

- d. "QUALITY LEVEL D" – (QLD): EXISTING RECORDS RESEARCH. QLD is the most basic level of information. Information is obtained from the review and documentation of existing utility records, verbal accounts, and/or one-call markings (to determine the existence of major active utilities and their approximate locations).

- 8.3 Removal or Relocation of Utilities. All electric power, street lighting, gas, telephone, and television utilities that require relocation will be the responsibility of the utility owner. A request for extending the specified contract time will be considered if utility owners cause delays.
- 8.4 Public Utilities. Water, sewer, storm drainage, and other utilities owned and operated by the public entities shall, unless otherwise specifically requested by the utility owner, be removed, relocated, supported or adjusted as required by the Contractor at the Contractor's expense. All such work shall be in accordance with these Contract Documents, or the Owner's Standard Specifications or written instructions when the work involved is not covered by these Specifications.
- 8.5 Other Utilities. Utilities owned and operated by private individuals, railroads, school districts, associations, or other entities not covered in these Special Provisions shall, unless otherwise specifically requested by the utility owner, be removed, relocated, supported or adjusted as required by the Contractor at the Contractor's expense. All work shall be in accordance with the utility owner's directions, or by methods recognized as being the standard of the industry when directions are not given by the owner of the utility.
- 8.6 Damage to Utilities and Private Property. The Contractor shall protect all utilities and private property and shall be solely responsible for any damage resulting from his construction activities. The Contractor shall hold the Owner and Project Representative harmless from all actions resulting from his failure to properly protect utilities and private property. All damage to utilities shall be repaired at the Contractor's expense to the full satisfaction of the owner of the damaged utility or property. The Contractor shall provide the Owner with a letter from the owner of the damaged utility or property stating that it has been repaired to the utility owner's full satisfaction.
- 8.7 Structures. The Contractor shall exercise every precaution to prevent damage to existing buildings or structures in the vicinity of his work. In the event of such damages, he shall repair them to the satisfaction of the owner of the damaged structure at no cost to the Owner.

- 8.8 Overhead Utilities. The Contractor shall use extreme caution to avoid a conflict, contact, or damage to overhead utilities, such as power lines, streetlights, telephone lines, television lines, poles, or other appurtenances during the course of construction of this project.
- 8.9 Buried Gas Lines. The Contractor shall provide some means of overhead support for buried gas lines exposed during trenching to prevent rupture in case of trench caving.
- 8.10 Pavement Removal. Where trench excavation or structure excavation requires the removal of curb and gutter, concrete sidewalks, or asphalt or concrete pavement, the pavement or concrete shall be cut in a straight line parallel to the edge of the excavation by use of a spade-bitted air hammer, concrete saw, colter wheel, or similar approved equipment to obtain a straight, square clean break. Pavement cuts shall be 2 feet wider than the actual trench opening.
- 8.11 Survey Markers and Monuments. The Contractor shall use every care and precaution to protect and not disturb any survey marker or monuments, such as those that might be located at lot or block corners, property pins, intersection of street monuments or addition line demarcation. Such protection includes markings with flagged high lath and close supervision. No monuments shall be disturbed without prior approval of the Project Representative. Any survey marker or monument disturbed by the Contractor during the construction of the project shall be replaced at no cost to the Owner by a licensed land surveyor.
- 8.12 Temporary Utilities. The Contractor shall provide all temporary electrical, lighting, telephone, heating, cooling, ventilating, water, sanitary, fire protection, and other utilities and services necessary for the performance of the work. All fees, charges, and other costs associated therewith shall be paid for by the Contractor.

9. CONSTRUCTION SAFETY

The Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees and subcontractors) and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to U.S. Department of Labor (OSHA), and all other applicable federal, state, county, and local laws, ordinances, codes, and regulations. Where any of these are in conflict, the more stringent requirement shall be followed. The Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve them from compliance with the obligations and penalties set forth therein, see General Conditions, Article 10.

10. CONSTRUCTION LIMITS AND AREAS OF DISTURBANCE

- 10.1 Construction Limits. Where construction easements or property lines, are not specifically called out on the Contract Documents, limit the construction disturbance to ten (10) feet, when measured from the edge of the slope stake grading, or to the adjacent property line, whichever is less. Disturbance and equipment access beyond this limit is not allowed without the written approval of both the Project Representative and the Owner of the affected property. If so approved, disturbance beyond construction limits shall meet all requirements imposed by the landowner; this includes existing roads used and/or improved as well as the construction of new access roads. Special construction, reclamation, or post-construction reclamation or other closure provisions required by the landowner on access roads beyond the construction limits shall be performed by the Contractor at no additional cost to the Owner.
- 10.2 Areas of Disturbances. Approved areas of disturbance are those areas disturbed by construction activities within the construction limits and along designated or approved access routes. Such areas may require reclamation and revegetation operations, including grading to the original contours, top soiling with salvaged or imported topsoil, seeding, fertilizing, and mulching as specified herein. Other areas that are disturbed by the Contractor's activities outside of the limits noted above will be considered as site damage or unapproved areas of disturbance, see General Conditions, Articles 3 and 10. This includes areas selected by the Contractor outside the defined construction limits for mobilization, offices, equipment, or material storage.

11. DECONTAMINATE CONSTRUCTION EQUIPMENT

Power wash all construction equipment that have been previously operated off of paved or gravel roadways entering the project site to prevent the spread of noxious weeds and aquatic invasive species. This applies to all FWP projects, whether or not individual construction permits specifically address cleaning of equipment.

12. TREE PROTECTION AND PRESERVATION

The Contractor and the Owner shall individually inspect all trees within the project construction limits prior to construction. The Owner shall determine which trees are to be removed and which trees are to be preserved. Construction of the grading, utilities and various roadway facilities must not significantly damage the trees root system or hinder it's chances for survival. Reasonable variations from the Contract Documents, as directed by the Project Representative, may be employed to ensure the survival of trees.

13. CONSTRUCTION SURVEYS

The Contractor will be responsible for all layout and construction staking utilizing the Project Representative's existing control and coordinate data for the project. Dimensions and elevations indicated in layout of work shall be verified by the Contractor. Discrepancies between Drawings, Specifications, and existing conditions shall be referred to the Project Representative for adjustment before work is performed. The Project Representative may set location and grade stakes prior to construction; however, it is ultimately the responsibility of the Contractor to check and verify all construction staking for the project.

Existing survey control (horizontal and vertical) has been set for use in the design and ultimately the construction of these improvements. A listing of the coordinates and vertical elevation for each of these control points may be included in the project drawings.

The Contractor will be responsible for preserving and protecting the survey control until proper referencing by the Contractor has been completed. Any survey control obliterated, removed, or otherwise lost during construction will be replaced at the Contractor's expense.

Contractor shall be aware of property pins and survey monuments. Damage to these pins will require replacement of such by a registered land surveyor at no cost to the owner.

The Contractor shall provide construction staking from the Contractor's layouts and the control points. Contractor's construction staking includes at a minimum:

1. Slope stakes located at critical points as determined by the Project Representative.
2. Blue tops every longitudinally and transversely for subgrade and crushed base to verify finish grading of course.
3. Location and grade stakes for drainage features and retaining walls.
4. Location stakes for roadside safety items, permanent and temporary traffic control, and misc. items as determined by the Project Representative.

Original field notes, computations and other records take by the Contractor for the purpose of quantity and progress surveys shall be furnished promptly to the Project Representative and shall be used to the extent necessary in determining the proper amount of payment due to the Contractor.

14. MATERIAL SOURCES AND CONSTRUCTION WATER

The Contractor shall be responsible for locating all necessary material sources, including aggregates, earthen borrow and water necessary to complete the work. The Contractor shall be responsible for meeting all transportation and environmental regulations as well as paying any royalties. The Contractor shall provide the Project Representative with written approvals of landowners from whom materials are to be obtained, prior to approval.

The Contractor may use materials from any source, providing the materials have been tested through representative samples and will meet the Specifications.

Water for compaction efforts shall be supplied by the Contractor.

15. MATERIALS SALVAGE AND DISPOSAL

Notify the Owner for any material salvaged from the project site not identified in the Contract Documents. The Owner reserves the right to maintain salvaged material at the project site, compensate the Contractor for relocation of salvaged material, or agreed compensation to Owner for material salvaged by the Contractor.

Haul and waste all waste material to a legal site and obey all state, county, and local disposal restrictions and regulations.

16. STORED MATERIALS

Contractor shall use an approved storage area for materials. Materials and/or equipment purchased by the Contractor may be compensated on a monthly basis. For compensation, provide the Project Representative invoices for said materials, shop drawings and/or submittals for approval, and applicable insurance coverage, see General Conditions, Article 9.

17. STAGING AND STOCKPILING AREA

Contractor shall use staging and stockpiling sites for to facilitate the project as approved by the Owner. Contract Documents may show approved staging and stockpiling locations. Notify Owner within 24 hours for approval of staging and stockpiling sites not shown on the Contract Drawings.

18. SECURITY

The Contractor shall provide all security measures necessary to assure the protection of equipment, materials in storage, completed work, and the project in general.

19. CLEANUP

Cleanup for each item of work shall be fully completed and accepted before the item is considered final. If the Contractor fails to perform cleanup within a timely manner the Owner reserves the right to withhold final payment.

20. ACCESS DURING CONSTRUCTION

Provide access to all public and private roadways and approaches within the project throughout the construction period.

Provide emergency access at all times within the project throughout the construction period.

21. CONSTRUCTION TRAFFIC CONTROL

The Contractor is responsible for providing safe construction and work zones within the project limits by implementing the rules, regulations, and practices of the Manual on Uniform Traffic Control Devices, current edition.

22. SANITARY FACILITIES

Provide on-site toilet facilities for employees of Contractor and Sub-Contractors and maintain in a sanitary condition.

23. CONTRACT CLOSEOUT

The Contractor's Superintendent shall maintain at the project site, a "Record Set of Drawings" showing field changes, as-built elevations, unusual conditions encountered during construction, and such other data as required to provide the Owner with an accurate "as constructed" set of record drawings. The Contractor shall furnish the "Record Set" to the Project Representative following the Final Inspection of the Project.

The Contractor's final payment will not be processed until the "Record Set" of drawings are received and approved by the Project Representative.

24. MEASUREMENT AND PAYMENT

Review these Contract Documents for additional Measurement and Payment specifications for definitions. Quantities are listed on the Bid Proposal for Payment Items. Additional material quantities, volumes, and measurements may be shown on the Contract Document drawings and/or specifications.

Unit Price quantities and measurements shown on the Bid Proposal are for bidding and contract purpose only. Quantities and measurements supplied, completed for the project, and verified by the Project Representative shall determine payment. Each unit price will be deemed to include an amount considered by the Contractor to be adequate

to cover Contractor's overhead and profit for each bid item.

The Owner or Contractor may make a Claim for an adjustment in Contract Unit Price if the quantity of any item of Unit Price Work performed by the Contractor differs materially and/or significantly (increase or decrease by 50%) from the estimated quantity indicated on the Bid Proposal.

Lump sum bid item quantities will not be measured. Payment for these lump sum bid proposal items will be paid in full amount listed on the Bid Proposal when accepted by the Project Representative, unless specified otherwise.

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 May 18 to December 1.**
- 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 14.25 miles or 3-wire suspension fencing at the boundaries of Big Snowy Mountains WMA. The project also includes 13.25 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. 3-Wire Suspension Fence

- ◆ General: This bid item shall include the installation of 3-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.
 - Installation of 4” x 12” boundary signs every 500’ and 12” x 18” at every gate and corner. Boundary Signs to be supplied by owner.
- ◆ 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 “3-Wire Suspension Fence” as listed in the proposal.

4. Single Leg End Panel

- ◆ General: This bid item shall include the installation of single leg end panel.
- ◆ 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 “Single Leg-End Panel” as listed in the proposal.

5. 2 – Post Panel

- ◆ General: This bid item shall include the installation of 2-Post 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 “2 -Post Panel” as listed in the proposal.

6. 3 - Post Panel / Corner

- ◆ General: This bid item shall include the installation of 3-Post 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.

- To be used in locations where horizontal corner is less than 90 degrees and grade breaks up to 45 degrees.
- ◆ Measurement: Measurement shall be taken per brace installed.
- ◆ Payment: Payment shall be by the price bid per “3 -Post Brace Panel / Corner” as listed in the proposal.

7. 16’ Wire Gate

- ◆ General: This bid item shall include the installation of 16’ 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 “16’ Wire Gate” as listed in the proposal.

8. Anchor Tree Brace

- ◆ General: This bid item shall include the installation of Anchor Tree Brace.
- ◆ 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.
 - Fence bracing installed according to plans and details.
 - Ensuring Braces a minimum of 25 rods apart.
- ◆ Measurement: Measurement shall be taken per brace installed.
- ◆ Payment: Payment shall be by the price bid per “Anchor Tree Brace” 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 clean up 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 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 and an installation tool provided by the clip manufacturer shall be used to attach the clips to the posts.

Lay down clips for wood shall be provided as needed.

- 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 AWWA 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 AWWA standards. **Certification of AWWA 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 16'-18' 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 fence will be measured by the linear foot complete in place, on its actual alignment, inclusive of brace panels and corners and excluding gates. 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. Anchor Tree Brace shall be measured on a per each basis.
- F. 3-Post Panels / Corners as shown on the plans shall be measured on a per each basis. The price shall include all bracing panels shown on the Plans for corners.

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. 3 Post Brace Panel / 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