

## SPECIAL PROVISIONS

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### 1. SCOPE OF WORK

This project includes the construction fishing access site on the Clark Fork River. Specific improvements included in the project are a boat ramp, precast concrete latrine, gravel access road and gravel parking areas.

### 2. PROJECT MEETINGS

Pre-Construction Conference. After the Contract has been awarded, but before the start of construction, a pre-construction conference will be held at a time and place mutually agreed to by the parties. The conference shall be attended by the following: the Contractor and his superintendent; the principal subcontractors; representatives of principal suppliers and manufacturers, as appropriate; the Engineers and his construction observer; representatives of the Owner and others as appropriate.

Unless previously submitted, the Contractor shall bring the following submittals to the conference: list of proposed Subcontractors; proposed construction schedule; schedule for submitting shop drawings and other submittals; schedule procurement dates; construction technique submittal forms (as applicable); preliminary payment schedule; and tentative schedule of values. Work shall not start prior to the Engineer's receipt of these submittals. The Engineer will preside at the conference and will arrange for keeping the minutes and distributing copies of the minutes to all persons attending the meeting.

### 3. UTILITIES AND BARRIERS

Notification. The Contractor shall contact the one call locate number in advance of performing any excavation work on the site to obtain utility locates over the entire area to be impacted by construction of the project. The Contractor shall immediately notify the Engineer of the

discovery of any utilities that are in conflict with the work that were not previously identified in the plans.

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 utilities 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.

Temporary Utilities. The Contractor shall provide all temporary electrical, lighting, telephone, heating, cooling, ventilating, water, sanitary, first aid, 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.

Conflicts with Existing Utilities. For any utilities shown on the plans which are damaged or require temporary support to allow performance of the work, the Contractor shall contact the utility's owner and make all arrangements and pay all costs associated with the repair and/or temporary support of the utility. The Contractor shall comply with all requirements of the utility's owner.

The Contractor is responsible for the repair of any utilities that were properly marked by the utility locator and damaged by the Contractor, whether they are shown on the plans or not.

Barriers. The Contractor shall temporarily remove all fences, barricades, minor structures, and other obstructions that interfere with the prosecution of the work. Removal shall not extend beyond designated construction limits or right-of-way without first obtaining written authorization from the owner of the barrier.

Fences and barricades used for the confinement or exclusion of livestock, animals, or persons shall be replaced at the end of each work day to the extent necessary to perform the restrictive intent of the barrier.

Unless otherwise directed by the Engineer or indicated on the Drawings, all barriers so removed shall be replaced following the completion of the work to as good or better condition than existed prior to the start of work. The requirement applies to small trees and decorative shrubs as well as fences, barricades, and minor structures.

The Contractor shall replace at his own expense all barriers damaged or destroyed.

#### **4. REPAIR AND REPLACEMENT QUALITY**

General. Items requiring repair or replacement due to damage or removal or otherwise necessitated in the course of pursuance of the work and which are not otherwise specified herein, shall be repaired or replaced to the following levels of quality.

BEARMOUTH  
FISHING ACCESS SITE

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Paved and Gravel Roads, Driveways, and Sidewalks. Repair or replacement shall be to a thickness and grade matching the existing condition. Quality of materials and methods shall comply with respective sections of the current edition of the Montana Public Works Standard Specifications.

Water and Sewer Main and Services. Repair or replacement shall be in a manner consistent with the existing condition using materials conforming to the Uniform Plumbing Code, the current editions of the DEQ 1 and DEQ 2 circulars, American Water Works Association Standard Specifications, and the requirements of the Montana Department of Environmental Quality. Construction shall also comply with the current edition of the Montana Public Works Standard Specifications. Repair or replacement will not be allowed with materials like the existing installation if they do not conform to the above-referenced standards.

Electrical, Telephone, Cable TV, Natural Gas, and Petroleum Lines. Repair or replacement shall be to the standards required by the utility owner and at the utility owner's option may be performed by the utility owner with full cost assessed to the Contractor.

Fences. All fences adjacent to any work site are to be maintained to the satisfaction of the abutting property owners. The Contractor shall notify the landowners of the need to temporarily removed or relocate fences for access to the work and shall coordinate such activities with the respective landowners in regards to removal, relocation, and restoration of fences prior to commencing work.

Any fence removed or destroyed during the course of the Contract shall be reinstalled or reconstructed in like kind at no cost to the Owner or the landowner. The cost for this work shall be considered incidental and no additional compensation will be allowed.

Other Items. Repair or replacement of other items not covered by the preceding shall be to the standards required by the owner of the item and at the owner's option may be performed by the owner of the item with full cost assessed to the Contractor.

Decisions Regarding Repair Versus Replacement. The decision of repair versus replacement of an affected item shall be at the discretion of the Engineer upon consultation with the owner of the item. The decision shall be based on a determination of whether repaired quality can equal the quality of a replacement installation. The Engineer's authority shall be final in this regard.

Limits of Repair and Replacement. The limits of areas to be repaired or replaced shall be determined by the Engineer in the field based on the extent of damage or removal sustained. The determination shall be based on insuring that all damaged or removed portions of the existing installation are fully restored. The authority of the Engineer shall be final in this regard. All work effects outside limits as described in these Contract Documents are subject to repair and replacement quality as described herein.

Repair by Party Owning or Maintaining Item. The party owning or maintaining the item under consideration shall have the exclusive right to undertake repair or replacement themselves and charge the Contractor for full costs incurred or to direct and supervise the Contractor to repair or replace the item to their standard of quality. The authority of the owner of the item shall be final in this regard.

## **5. GENERAL CONSTRUCTION REQUIREMENTS**

Quality Assurance. The Engineer will monitor the construction of work covered by this section to determine if the work is being performed in accordance with the contract requirements. The Engineer does not have the authority or the means to control the Contractor's methods of construction. It is, therefore, the Contractor's responsibility to utilize all methods, equipment, manpower, 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. All buried work items shall be installed in the presence of the Engineer or may not be considered for payment.

Grade and Alignment. The Contractor shall provide all construction staking as required to define the locations of the improvements to be installed under this contract.

Tolerances. Construction tolerances for the work shall be as outlined in the Technical Specifications.

Construction Limits. Construct activities shall be limited to area no more than 40-feet from the edge of excavation and embankment, or any other improvements shown on the plans, except that disturbance of wetlands will be minimized to the extent possible. Equipment access between roads and the construction site shall be limited to a single route to minimize disturbance. Disturbance and equipment access beyond these limits is not allowed without the written approval of both the Engineer 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 road ripping 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.

Areas of Disturbance. Approved areas of disturbance are those areas disturbed by construction activities within the construction limits and along designated or approved access routes. Such areas shall be fine graded to blend with the existing terrain. Other areas that are disturbed by the Contractor's activities outside the limits noted above will be considered as site damage or unapproved areas of disturbance subject to the repair and replacement quality as specified herein. Such areas will also require the reclamation operations noted above and as specified herein, but costs of such work shall be borne by the Contractor. This includes areas selected by the Contractor outside the defined construction limits for mobilization, offices, equipment, or material storage. Stockpiling of gravel on-site is not allowed except within the parking lot at locations approved by the Owner.

**6. MATERIAL SOURCES**

Additional material is needed for embankment to construct this project. The Contractor will be responsible for placement and import from an off-site site location secured by the Contractor. The material shall be clean material, suitable for use as fill material, and subject to the approval on the Engineer. Haul routes shall be within the corridors of disturbance created by this project.

**7. ENVIRONMENTAL PROTECTION**

The Contractor shall comply with all laws and regulations of the United States Corps of Engineers and Environmental Protection Agency, Montana Department of Fish, Wildlife and Parks, Department of State Lands, Department of Environmental Quality, the Department of Natural Resources and Conservation, and with all other Federal, State, and Local laws and regulations controlling pollution of the environment. He shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

The Contractor also agrees to comply with the requirements of any permits obtained for the project by the Owner. These permits include but may not be limited to the permits listed under the Permits and Regulatory Requirements section. Copies of any of these permits are available upon request from the Engineer.

The Contractor shall be responsible for submitting and obtaining a temporary discharge permit from the Montana Department of Environmental Quality for the discharge of any water related to the construction of this project. A construction Dewatering Discharge Permit, issued by the Department of Environmental Quality, is required if water from construction is discharged to state waters. The Department of Environmental Quality must be contacted immediately if either contaminated soil or contaminated groundwater is encountered.

The Contractor shall be responsible for submitting and obtaining a storm water discharge permit from the Montana Department of Environment Quality. The cost of any erosion control measures or other work required by the permit shall be included in the bid and are considered incidental to the project.

**8. WEED CONTROL**

Prior to mobilizing equipment to the project site, the Contractor shall clean his equipment and vehicles to assure no weeds are imported. If there is an abnormal growth of noxious weeds on a project site after construction as determined by the Owner or local weed control authority, the Contractor may be responsible for weed control under the contract warranty. All equipment is subject to inspection by the Engineer/Owner prior to mobilizing to site.

**9. PERMITS AND REGULATORY REQUIREMENTS**

Jurisdiction. The performance of this work shall be under the jurisdiction of the following agencies, departments, and standards and compliance with the requirements thereof is required:

**Federal Level:** United States Law

**State Level:** Department of Environmental Quality; Department of Fish, Wildlife & Parks; Montana Department of Transportation; Montana Building Code Division; Uniform Building Code; Uniform Plumbing Code; Uniform Mechanical Code; National Electric Code; State annotations to these codes; and Montana State Law.

**Local Level:** Granite County

Contractor's Responsibility. The Contractor shall familiarize himself with the requirements of all regulatory agencies pertaining to the performance of the work on the project.

The Contractor shall secure and pay for all additional permits, licenses, and fees necessary for the performance of the work, not already obtained by FWP.

The Contractor shall perform all work in accordance with the regulatory requirements. Any conflict between the Contract Documents and the regulatory requirements shall be brought to the immediate attention of the Engineer.

The following permits shall be in place prior to starting construction:

<b>Permit</b>	<b>Entity Providing Permit</b>	<b>Entity Submitting Permit</b>
Section 404	Army Corps of Engineers	FWP
SPA 124	FWP	FWP
318 Authorization	Montana Dept. of Environmental Quality	FWP
Approach	Montana Dept. of Transportation	FWP
Floodplain Development	Granite County	FWP
Wastewater	Granite County/DEQ	FWP
SWPPP	Montana Dept. of Environmental Quality	Contractor

**10. SMOKE AND DUST CONTROL**

The Contractor shall have informed himself of all applicable State Board of Health requirements and similar State or Federal requirements pertaining to control of or abatement of air pollution. The Contractor shall have provided or be prepared to provide such air pollution control measures as are required to comply with the minimum standards established by such agencies.

Hauling of material and transport of equipment along public roadways or through the towns and adjacent other structures and dwellings shall require effective dust abatement procedures. This also applies to the unloading and placement of spoils material at deposition sites. The Contractor shall utilize environmentally sound methods for watering and/or otherwise chemically treating dust-generating surfaces to comply with all applicable legal standards for airborne particulates. Prior to any work, the Contractor shall submit a written plan for dust abatement procedures identifying at a minimum the following:

- Times and nature of dust generating activity on public roads and at deposition sites.
- Nature and chemical characterization of dust abatement materials to be used.
- Method of application of dust abatement materials to be used.
- Time schedule for application of dust abatement materials to be used.
- Availability of equipment and operators for emergency application of dust abatement materials at other than scheduled times.

Watering for dust control is considered incidental to the Contract and shall be performed at no additional cost to the Owner.

## **11. SITE CLEAN UP**

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, re-sodding, or other re-surfacing may be necessary to repair any construction related impacts or damage.

All construction 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.

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.

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.

## **12. SANITARY FACILITIES**

Temporary sanitary facilities shall be provided during construction and maintained by the Contractor who will comply with state and local regulations. The cost of furnishing, installing,

and maintaining sanitary facilities shall be considered incidental to other items of work and no additional compensation will be allowed.

### **13. INCORPORATION OF MONTANA PUBLIC WORKS SPECIFICATION**

All work not specially described in the technical specifications of these bid documents shall be performed in compliance with the applicable technical specifications section found in Montana Public Works Specification- Sixth Edition. The Montana Public Works Specifications shall be modified to require the Contractor to provide compaction and concrete testing through an independent testing laboratory, not the Owner.

### **14. CONSTRUCTION SCHEDULING REQUIREMENTS**

Any construction below the ordinary high-water mark of the Clark Fork River shall occur during seasonal low water periods in the early spring or late fall. The Contractor is required to obtain concurrence from the Engineering and FWP before beginning this work. Once started the Contractor shall maintain continual progress during normal working hours until the work below the ordinary high-water mark is 100% complete.

All other work above the ordinary high-water mark may occur at anytime within the allotted contract days.

### **15. CONSTRUCTION STAKING**

Construction staking will be provided as follows:

- Parking area edges and radius points at both sites (with references)
- Ramp parking area interior (4 points)
- Boat ramp (4 points total, 2 at south end, 2 at water's edge)
- Latrine (2 points)
- Fencing (fences ends and gate)
- Approach road centerline (with references)
- Centerline of flat bottom ditches (with references)

All staking will be provided in a single trip. Contractor is responsible for protection of the stakes, replacement of lost stakes, referencing stakes that will be disturbed by construction and any additional staking needed beyond those listed above.

### **16. GEOTECHNICAL CONDITIONS**

A geotechnical investigation was not completed for this project. Soils are generally classified as sandy loam. The water table is expected to be encountered in the first 24-inches of excavation beneath the existing ground surface. Encountering bedrock is not anticipated at the excavation depths planned for this project.



**17. MEASUREMENT AND PAYMENT**

A. **Scope:** This section describes the method of measurements and the basis of payment for all work shown on the drawings and required by the Contract Documents. This measurement and payment section shall take precedence over all other references to measurement and payment referenced in these specifications (with the exception of any addenda).

B. **Bid Prices:** The bid price for each item of the Contract in the Bid Proposal shall cover all work shown on the drawings and be defined in the specifications and other contract documents. All costs in connection with the work including furnishing all materials, equipment, and tools, and performing all necessary labor and supervision to fully complete the work, shall be included in the lump sum or unit price bid items on the proposal. The amounts shown on the proposal shall be the contract price.

No item that is required by the Contract Documents for the proper and successful completion of the work will be paid for outside of or in addition to the prices submitted in the Bid Proposal. All work not specifically set forth as a pay item in the Bid Proposal shall be considered a subsidiary obligation of the Contractor and all cost in connection therewith shall be included in the prices bid.

Retainage at the amounts specified in the General Conditions will be withheld from each progress payment.

C. **Estimated Quantities:** Any estimated quantities stipulated in the Bid Proposal or other Contract Documents are approximate and are to be used only as a basis for estimating probable cost of the work and for the purpose of comparing the bids submitted for the work.

D. **Method of Measurement:** No measurement will be made on bid items representing a lump sum bid.

E. **Basis of Payment:**

**1. Mobilization, Insurance & Bonding**

- ◆ 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;
- Insurance and bonding;
- Prepare and provide submittals, construction schedule, and all other paperwork required by the contract documents prior to construction startup.

- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**2. and 20. Excavation and Embankment**

- ◆ General: This bid item shall include the excavation, embankment, grading, of earthwork materials generated by the site.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Clearing and grubbing;
  - Grading, embankment, excavation and compaction;
  - Export of material to off-site as required;
  - Survey;
  - Watering and dust control;
  - Remove and replace existing topsoil.
- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**3. Import Embankment Material**

- ◆ General: This bid item shall include the import and placement of embankment material on the site.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;

- Royalties and other costs associated with securing embankment material.
  - Clearing and grubbing;
  - Haul to site;
  - Placement, grading, embankment, and compaction;
  - Survey;
  - Watering and dust control;
- ◆ Measurement: Measurement shall be one lump sum bid item.
  - ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**4. Soil Separation Fabric**

- ◆ General: This bid item shall include the installation of soil separation fabric.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and install soil separation fabric;
  - Survey as required to locate fabric.
- ◆ Measurement: Measurement shall be per square yard of soil separation fabric installed. Measurement shall be rounded to the nearest square yard.
- ◆ Payment: Payment shall be by the unit price bid for each square yard of soil separation fabric installed listed in the proposal.

**5. and 21. Gravel Surfacing Section**

- ◆ General: This bid item shall include the placement of the new gravel section for roads and parking.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Grading to prepare subgrade;
  - Import, place, and compact crushed base course;
  - Import, place, and compact crushed top surfacing;
  - Compaction testing;
  - Survey;

- Watering and dust control;
- Fine grading.
- ◆ Measurement: Measurement shall be per square yard of gravel surfacing section installed. Measurement shall be rounded to the nearest square yard.
- ◆ Payment: Payment shall be by the unit price bid for each square yard of gravel surfacing section installed listed in the proposal.

**6. Asphalt Surfacing Section**

- ◆ General: This bid item shall include the installation of asphalt surfacing section.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Placement of underlying crushed base course with compaction;
  - Survey line and grade;
  - Provide required tack coat;
  - Provide and place, and compact asphalt;
  - Required testing of crushed base course and asphalt.
- ◆ Measurement: Measurement shall be per square yard of asphalt surfacing section installed. Measurement shall be to the nearest square yard.
- ◆ Payment: Payment shall be by the price bid per square yard of asphalt surfacing section installed as listed in the proposal.

**7. Push-in Concrete Boat Ramp**

- ◆ General: This bid item shall include the installation of push-in concrete boat ramp.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Excavation and embankment;
  - Tasks associated with meeting permitting requirements;
  - Provide and install slide rails and screened gravel construction pad, and concrete beam;

- Form and pour concrete;
  - Slide slab into place;
  - Riprap/drain rock installation adjacent to structure;
  - Provide and install turbidity curtain.
- ◆ Measurement: Measurement shall be per lineal foot of the concrete surface length of push-in concrete boat ramp installed. Measurement shall be to the nearest foot.
  - ◆ Payment: Payment shall be by the unit price bid per lineal foot of push-in concrete boat ramp listed in the proposal.

**8. Cast-in-Place Concrete Boat Ramp**

- ◆ General: This bid item shall include the installation of cast-in place concrete boat ramp.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Excavation and embankment;
  - Tasks associated with meeting permitting requirements;
  - Install and compact screened gravel,
  - Form and pour concrete;
  - Riprap installation adjacent to structure.
- ◆ Measurement: Measurement shall be per lineal foot of the concrete surface length of cast-in-place concrete boat ramp installed. Measurement shall be to the nearest foot.
- ◆ Payment: Payment shall be by the unit price bid per lineal foot of cast-in-place concrete boat ramp listed in the proposal.

**9. Guardrail**

- ◆ General: This bid item shall include the installation of guardrail and associated components.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Clearing and grubbing;
  - Grading, embankment, excavation and compaction;
  - Provide and install posts;

- Survey;
- Provide and install rail and hardware;
- Provide and install terminal element;
- Provide and install cable ties;
- Connection to existing guardrail.

- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**10. Smooth Wire Fence**

- ◆ General: This bid item shall include the installation of smooth wire fence.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Line clearing;
  - Provide and install fence posts, panels, wire, staples;
  - Excavation and backfill for fence posts.
- ◆ Measurement: Measurement shall be per lineal foot of smooth wire fence installed. Measurement shall be to the nearest foot. Measurement shall exclude single panels adjacent to gates.
- ◆ Payment: Payment shall be by the unit price bid per lineal foot of smooth wire fence listed in the proposal.

**11. Smooth Wire Gate**

- ◆ General: This bid item shall include the installation of a smooth wire gate constructed of wire and posts.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Line clearing;
  - Provide and install posts, wire, staples and connections.
  - Provide and install single panels as required on both sides of the gate.

- ◆ Measurement: Measurement shall be per each smooth wire gate installed.
- ◆ Payment: Payment shall be by the unit price bid for each smooth wire gate installed listed in the proposal.

**12. Barbed Wire Fence**

- ◆ General: This bid item shall include the installation of barbed wire fence.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Line clearing;
  - Provide and install fence posts, panels, wire, staples;
  - Excavation and backfill for fence posts.
- ◆ Measurement: Measurement shall be per lineal foot of barbed wire fence installed. Measurement shall be to the nearest foot. Measurement shall exclude single panels adjacent to gates.
- ◆ Payment: Payment shall be by the unit price bid per lineal foot of barbed wire fence listed in the proposal.

**13. Double Panel Metal Gate**

- ◆ General: This bid item shall include the installation of a 20-foot wide metal double panel gate.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and install gate, gate hardware and closures;
  - Provide and install single panel as required on both sides of gate.
  - Provide and install open position wood posts.
- ◆ Measurement: Measurement shall be per each double panel metal gate installed.
- ◆ Payment: Payment shall be by the unit price bid for each double panel metal gate installed listed in the proposal.

**14. Cattle Guard**

- ◆ General: This bid item shall include the installation of a 20-foot wide cattle guard.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Excavation and embankment;
  - Provide and construct pressure treated timber foundation frame;
  - Provide and install cattle guard grid and end wings;
  - Provide and install single panel as required on both sides of cattle guard.
- ◆ Measurement: Measurement shall be per each cattle guard installed.
- ◆ Payment: Payment shall be by the unit price bid for each cattle guard installed listed in the proposal.

**15. Stop Sign**

- ◆ General: This bid item shall include the installation of stop signs.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Survey;
  - Excavation and backfill of foundations.
  - Provide and install concrete foundations, anchors, supports, hardware and sign faces.
- ◆ Measurement: Measurement shall be per each sign installed.
- ◆ Payment: Payment shall be by the price bid per each sign installed as listed in the proposal.

**16. and 24. Concrete Parking Stops**

- ◆ General: This bid item shall include the placement of new pre-cast concrete parking stops.
- ◆ Work Included:



- All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and place parking stop;
  - Provide and install rebar and rebar end caps;
  - Any modifications to the parking stop necessary for installation;
  - Survey as necessary.
- ◆ Measurement: Measurement shall be per each concrete parking stop installed.
  - ◆ Payment: Payment shall be by the unit price bid for each concrete parking stop installed listed in the proposal.

**17. Topsoil, Seed and Fertilize**

- ◆ General: This bid item shall include the topsoil, seeding, mulch and fertilizing of areas disturbed by construction.
- ◆ Work Included:
  - All labor, tools, equipment, materials, royalties, and incidentals needed to complete the work as specified;
  - Fine grading and conditioning of topsoil;
  - Provide and place seed, mulch and fertilizer;
  - Import topsoil as required;
  - Maintenance of seeded area as required by specifications.
- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**18. Tree and Brush Removal**

- ◆ General: This bid item shall include the removal of all brush and trees that conflict with installation of improvements.
- ◆ Work Included:
  - All labor, tools, equipment, materials, royalties, and incidentals needed to complete the work as specified;
  - Remove and dispose of trees and brush;
  - Haul and unloading at disposal site.
- ◆ Measurement: Measurement shall be one lump sum bid item.

- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**19. and 27. Erosion Control**

- ◆ General: This bid item shall include the installation of maintenance of erosion control measures.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Obtain and manage Storm Water Pollution Prevention Permit, including permit fees;
  - Install and maintain silt fence;
  - Install and maintain vehicle tracking pad;
  - Survey;
  - Maintenance of permit requirements until it is released.
  - Removal of erosion control features.
- ◆ Measurement: Measurement shall be one lump sum bid item.
- ◆ Payment: Payment shall be by the price bid for the lump sum bid item listed in the proposal.

**22. Precast Concrete Latrine**

- ◆ General: This bid item shall include the installation of precast concrete latrines provided by the Owner.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide compaction testing from an independent testing firm;
  - Survey as required;
  - Repair and replacement of any items not specifically mentioned elsewhere in these specifications;
  - Excavation and backfill;
  - Remove spoils generated by installation;
  - Provide and install crushed base course;
  - Coordinate delivery of latrine;
  - Install precast concrete latrine;
  - Fine grading of disturbed area.

- ◆ Measurement: Measurement shall be per each latrine installed.
- ◆ Payment: Payment shall be by the unit price bid for each latrine installed listed in the proposal.

**23. Concrete Sidewalk**

- ◆ General: This bid item shall include the installation of concrete sidewalk.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Placement of underlying crushed gravel with compaction;
  - Survey line and grade;
  - Provide and place concrete;
  - Install contraction and expansion joints;
  - Finishing and brooming;
  - Hot and cold weather concreting procedures.
- ◆ Measurement: Measurement shall be per square foot of sidewalk installed. Measurement shall be to the nearest square foot.
- ◆ Payment: Payment shall be by the price bid per square foot of sidewalk installed as listed in the proposal.

**25. Bollards**

- ◆ General: This bid item shall include the installation of bollards.
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Excavation and backfill;
  - Provide and place steel pipe;
  - Concrete foundation and pipe fill;
  - Painting;
  - Survey as necessary.
- ◆ Measurement: Measurement shall be per each bollard installed.
- ◆ Payment: Payment shall be by the unit price bid for each bollard installed listed in the proposal.

**26. Wood Rail Fence**

- ◆ General: This bid item shall include the installation of wood rail fence.
  
- ◆ Work Included:
  - All labor, tools, equipment, materials, and incidentals needed to complete the work as specified;
  - Provide and install fence posts and rails;
  - Excavation and backfill for posts.
  
- ◆ Measurement: Measurement shall be per lineal foot of wood rail fence installed. Measurement shall be to the nearest foot.
  
- ◆ Payment: Payment shall be by the unit price bid per lineal foot of wood rail fence listed in the proposal.

# TECHNICAL SPECIFICATIONS

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Note:

All other work shall be performed in compliance with the Montana Public Works Specification- Sixth Edition. The Montana Public Works Specifications shall be modified to require the Contractor to provide compaction and concrete testing through an independent testing laboratory, not the Owner.

**SECTION 01/801**

**FLOATING TURBIDITY CURTAIN**

**PART 1 GENERAL**

**1.1 DESCRIPTION**

- A. This work consists of furnishing and installing a floating turbidity curtain to control sedimentation and suspended solids during underwater construction methods.

**PART 2 PRODUCTS**

**2.1 GENERAL**

- A. Provide a turbidity curtain with a geotextile material curtain, floatation boom, and anchorage system.
- B. Provide a woven geotextile material as approved for turbidity containment by manufacture’s recommendations.
- C. An acceptable floating turbidity curtain product is *Layfield Turbidity Curtains*, or approved equal. [www.layfieldgroup.com](http://www.layfieldgroup.com), (855)-203-0091

**PART 3 EXECUTION**

**3.1 INSTALLATION**

- A. Install turbidity curtain parallel to the shoreline around the construction area of disturbance. Turbidity curtain installation is required prior to any and all work below the ordinary high water mark.
- B. Extend the turbidity curtain to the water body bottom at all installation locations.
- C. Provide flexible flotation buoys for the top of the turbidity curtain.
- D. Provide an anchorage system consisting of load lines attached to the bottom of the turbidity curtain. Place anchors every 50’ connected to the top of the floatation buoy.
- E. Inspect the turbidity curtain daily to ensure sedimentation is controlled and proper function of the erosion control BMP. Immediately correct turbidity curtain deficiencies before continuing with work. If turbidity curtain deficiencies are not

corrected, the Contractor may be in violation with approved construction permits and may be issued a stop work order by the Project Represent

- F. Maintain turbidity curtain throughout all work activities until removal approval by the Project Representative. Allow sediment to settle or disperse for 12 hours after construction disturbance prior to removal.

**END OF SECTION 01801**

**SECTION 02/240**

**RIPRAP**

**PART 1 - SCOPE**

1.1 DESCRIPTION

- A. This section covers the supply and installation of riprap along edges of the boat ramp.

1.2 SUBMITTALS

- A. The following submittals shall be provided in accordance with the General Conditions:
  - 1. Gradation of riprap material.

**PART 2 – MATERIALS**

2.1 RIPRAP

- A. Riprap shall be class I random riprap as defined in table 701-21 of the Montana Department of Transportation Standard Specifications.

**PART 3 – EXECUTION**

3.1 EXECUTION

- A. Riprap shall be mechanically placed in an excavated trench along the edge of the boat ramp. Riprap shall be mechanically tamped after placement to create a relatively smooth level surface.

**END OF SECTION 02/240**



**SECTION 02/330**

**SOIL SEPARATION FABRIC**

**PART 1 - SCOPE**

1. DESCRIPTION

A. This section covers the supply and installation of soil separation fabric.

2. SUBMITTALS

A. The following submittals shall be provided in accordance with the General Conditions:

1. Material and product specifications including specified properties.

**PART 2 – MATERIALS**

1. SOIL SEPARATION FABRIC

A. Soil separation fabric shall be woven polypropylene geotextile that is inert to biological degradation and resistant to naturally occurring chemicals, alkalis and acids.

B. Soil separation fabric shall meet or exceed the following specifications:

1. Ultimate Tensile Strength (ASTM D4595) = 3,600 lbs/ft
2. Tensile Strength at 5% strain (ASTM D4595) = 1,500 lbs/ft
3. Flow Rate (ASTM D4491) = 40 gpm/sf
4. Permittivity (ASTM D4491) = 0.9 sec<sup>-1</sup>
5. Apparent Opening Size (ASTM D4751) = #40 US sieve
6. Factory Sewn Seam (ASTM D4884) = 2400 lbs/ft
7. UV Resistance at 500 hours (ASTM D4355) = 80% strength retained

C. Soil separation fabric shall be Mirafi HP370 or an approved equal.

**PART 3 – EXECUTION**

1. GENERAL

A. Install soil separation fabric in accordance with manufacturer recommendations.

**END OF SECTION 02/330**

**SECTION 02/550**

**WIRE FENCE**

**PART 1 - SCOPE**

1.1 DESCRIPTION

- A. This section covers the supply and installation of barbed wire and smooth wire fencing and gates. Use barbed wire where existing barbed wire fence is replaced, use smooth wire on all other fences.

1.2 SUBMITTALS

- A. The following submittals shall be provided in accordance with the General Conditions:
  - 1. Manufacturers' data sheets on all materials used, including but not limited to: wire, fence posts, and gates.

**PART 2 – MATERIALS**

2.1 BARBED WIRE

- A. Barbed wire shall be zinc-coated, steel barbed wire meeting the requirements of ASTM A121. Breaking strength of stand wire shall not be less than 950 pounds. Barbs shall be uniformly spaced from 4 to 5 inches apart. Minimum weight of zinc coating shall be Class I, except that minimum weight coating for 15 2-gauge strand wire shall be class 3. Barbed wire shall be two-point barbed unless specified otherwise.

2.2 SMOOTH WIRE

- A. Smooth wire shall be zinc-coated, single strand, #9 steel wire.

2.3 WOVEN WIRE FABRIC

- A. Woven wire fabric shall be meet the requirements of AASHTO M279, No. 12 ½ grade 60, design #832-6-12 ½.

2.4 BRACE WIRE

- A. The wire shall be gauge 9, soft.

2.5 STAPLES AND NAILS

- A. Wire staples of the barbed U-shaped type shall not be less than 9 gauge, 1 ¾-inches long. Nails shall be a type approved by the Engineer.

2.6 TIE WIRES

- A. Tie wire shall not be lighter than gauge 12.2. Commercial fasteners supplied with the wire may be used when approved. All shall be galvanized.

2.7 METAL FENCE STAYS

- A. Metal fence stays shall be standard make. They shall be fabricated from 9 gauge 2 wire base and twisted to form a 2-wire unit.

2.8 WOOD FENCE POSTS AND BRACE RAILS

- A. Posts and brace rails shall be made from western larch, lodgepole pine, ponderosa pine, or douglas fir. They shall have the bark removed, be well seasoned, sound and straight grained.
- B. Posts shall be finished natural round.
- C. Corner, end, gate, pull and brace posts shall be a minimum of 6-inches in diameter and 8-feet long.
- D. A post with a bow of more than 2-inches in 8-feet will be rejected.
- E. Posts shall be treated with a minimum of 0.6 pcf of Chromated Copper Arsenic (CCA), type B or C, or Alkaline Copper Quaternary (ACQ) conforming to AWPA standards. Treatment length for posts shall extend 48-inches. The treated end shall be placed in the ground.
- F. Posts shall be tapered for driving is about 8 to 12-inches to a 1-inch point on the lower end. The top of the post shall be tapered for a minimum or 4-inches to a round top with a minimum of 3-inches in diameter for line posts and a minimum of 5-inches in diameter for all other posts. The taper is included in total post length. Posts shall be tapered prior to treatment.

2.9 METAL LINE POSTS

- A. Line posts shall be studded steel "T" posts, minimum 1.25 lbs/ft, 6.5-foot long constructed of ASTM A499, grade 60 steel. Post shall be coated with baked green enamel paint.
- B. Use wire ties supplied by post manufacturer to attached barbed wire to metal fence posts.

2.10 METAL GATES

- A. Each gate shall be furnished complete with hinges and a latch and other required hardware and accessories.
- B. Gated shall not exceed 50-inches in height.
- C. Gate panels shall be constructed of a 2-inch tubular steel frame with a minimum of four horizontal tubular or U-shaped steel cross members and three vertical steel supports.
- D. Gates shall be factory coated with a high quality enamel paint or equivalent product that is neutral in color.

2.11 DEADMAN OR ANCHOR

- A. A deadman shall be a minimum 150 pound Portland cement concrete block. Deadman may be cast in place when approved by the Engineer. An anchor may be a steel or iron bar or rod at least 1 ¼-foot in diameter by 3-feet long with provisions on one end so a brace wire can be secured.

2.12 CATTLE GUARD

- A. Cattle guard shall be standard manufacture, fabricated of A36 or better steel and rated for H-20 loading.

2.13 CONCRETE

- A. Concrete shall be M-4000 psi strength concrete meeting the requirements of the MPW Standard Specification.

**PART 3 – EXECUTION**

3.1 GENERAL

- A. Irregularities in the ground line shall be corrected as directed by the Engineer. All trees, rocks and shrubs shall be removed and disposed of. Clearing and leveling shall be completed with minimum disturbance to the terrain outside of the fence line.
- B. Posts may be driven or excavated. Posts damaged by driving shall be replaced at the Contractors expense. Posts shall be plumb and straight to grade. Excavated post holes shall be backfilled in 6-inch lifts with each lift solidly tamped and compacted.
- C. Posts holes for posts set in concrete shall be thoroughly wet when concrete is placed. Concrete shall be fully set prior to stretching wire or attaching gates.
- D. Barbed wire shall be attached after posts and footings have been firmly set. Wire shall be placed, tightly stretched and fastened to the posts. Tension shall be applied in accordance with the wire manufacturer’s recommendations using a mechanical stretcher or device designed for such use.

- E. Barbed wire shall be wrapped around the terminal posts and fastened to itself with at least four turns. Fence wire shall be placed on the side of the fence facing the roadway and shall be placed on curves so that the wire force is against the posts.
- F. U-shaped staples shall be driven diagonally across the grain so that both points do not enter between the same grain. In depressions where wire uplift occurs, staples shall be sloped with points slightly upwards. On level ground and over knolls, staples shall be sloped slightly downward. Wire shall be stapled tightly at corner, end and pull posts. On line posts staples shall not be driven so tightly as to prevent movement of the wire or cause damage to the wire.
- G. At grade depressions, alignment angles and other places where stresses tending to pull posts from the ground or out of alignment are created, the fence shall be snubbed or guyed at the critical points by a brace wire attached to each horizontal line of fence. The combined ends of the brace wire shall be firmly attached to a deadman buried not less than 2-feet in the ground or to an approved anchor point that will best serve to resist the pull of the wire fence. Deadman may also be fastened to posts. The locations of deadman shall be as directed in accordance with these specifications.
- H. When wooden fence posts are used for the fence, one metal line post shall be installed for each 500-foot run of fence and in runs of lesser length between gate posts to serve as lighting protection.
- I. Upon completion fence shall be true to line and grade, all posts shall be vertical and firm, all wire shall be taut, and the completed fence acceptable in all respects. Gates shall operate freely and properly. No openings shall be left that would allow stock or other animals to pass through the fence.

**END OF SECTION 02/550**

**SECTION 02/835**

**WOOD RAIL FENCE**

**PART I DESCRIPTION**

1. GENERAL

- A. This item covers the requirements for furnishing materials and constructing new pressure treated wood rail fence as shown on the Drawings or established by the Engineer.

2. SUBMITTALS

- A. The following submittals are required:
  - 1. Material and product specifications including dimensions for fence posts and rail, and associated hardware.

**PART 2 MATERIALS**

1. GENERAL

- A. The fence shall be the product of a manufacturer who has demonstrated by actual installations of a similar nature that its product is of the type required. The Contractor shall include all supplementary parts necessary or required for a complete and satisfactory installation within the true meaning and intent of the drawings. All runs of the fence shall present the same general appearance and the product of one manufacturer only will be accepted, except for items which do not influence the appearance of the completed fence. No used materials will be accepted.

2. FENCE POSTS AND RAILS

- A. Posts and rails shall be constructed of pressure treated pine milled and cut to the appropriate sizes. Rails shall have a single flat face.

**PART 3 CONSTRUCTION METHODS**

1. GENERAL

- A. The fence shall be constructed in accordance with the details on the Drawings and as specified herein using new materials, and all work shall be performed in a workmanlike manner satisfactory to the Engineer.

2. CLEARING FENCE LINE

- A. The site of the fence shall be sufficiently cleared of obstructions and surface irregularities shall be graded by blading or other means suitable to the Engineer so that the fence will conform to the general contour of the ground. The fence line shall be cleared to a minimum width of 2-feet on each side of the center line

of the fence. This clearing shall consist of the removal of all stumps, brush, rocks, tree, or other obstructions which will interfere with proper construction of the same fence. Stumps within the cleared area of the fence line shall be grubbed or excavated. The bottom of the fence shall be placed a uniform distance above the ground, as specified on the Drawings. When shown on the Drawings, the existing fences which coincide with, or are in a position to interfere with the new fence location shall be removed by the Contractor as a part of the construction work, unless such removal is listed as a separate item in the bid schedule. All holes remaining after post and stump removal shall be refilled with suitable soil, gravel or other material acceptable to the Engineer and shall be compacted properly with tampers.

- B. The work shall include the handling and disposal of all material cleared, excavated, or removed, regardless of the type, character, composition or condition or such material encountered.

3. **INSTALLING POSTS**

- A. All posts shall be spaced not more than 10-feet apart as shown on the Drawings. All post settings shall be done carefully so that all posts shall be vertical and in true alignment and rigidly secured in position. Soil shall be compacted around posts by tamping.
- B. Where solid rock is encountered without an overburden of soil, posts shall be set a minimum depth of 15-inches and set in concrete. The hole shall have a minimum width of 1-inch greater than the largest dimension of the post section to be set.

4. **INSTALLING RAILS**

- A. Rail dowels shall be attached to the post with Timberlock screws or approved equal, one screw per rail end.

5. **CLEAN-UP**

- A. The Contractor shall remove from the vicinity of the completed work all tools, buildings, equipment, etc. used during construction.

**END OF SECTION 02/835**

**SECTION 03/410**

**PRE-CAST CONCRETE VAULT LATRINE**

**PART 1 GENERAL**

1.1 DESCRIPTION

- A. This work consists of site preparation (excavation and leveling), backfilling and compaction, and landscaping for Fishing Access Site (FAS) pre-cast concrete vault latrines at designated areas on the project drawings or as directed by the Engineer.

**PART 2 PRODUCTS**

2.1 MATERIALS

- A. Pre-Cast Concrete Vault Latrine.
  - 1. Montana Department of Fish, Wildlife and Parks will supply the latrine through Missoula Concrete Products. The Contractor shall coordinate the delivery with Missoula Concrete Products. The Contractor is advised to contact **Missoula Concrete Products at (406) 549-9682**, as soon as a schedule is established to insure delivery in a timely manner.
- B. Gravel Bedding for Latrine.
  - 1. Gravel bedding shall be ¾-inch minus crushed base course per the MPW Standard Specifications.

**PART 3 EXECUTION**

3.1 GENERAL

Each latrine location shall be staked in the field by the Engineer. Refer to the project drawings for pre-cast concrete vault toilet installation locations, details, and dimensions.

3.2 EXCAVATION

Excavate for the installation of the toilet vault to a depth that will allow the structure site to be free draining after installation is completed. Salvage conserved topsoil.

3.3 FINISH FLOOR ELEVATION



Finish floor elevation shall be a minimum of 4 to 6 inches above natural grade measured at the front entrance.

### 3.4 COMPACTION OF EARTH UNDER TOILET VAULTS

Prior to installation of the toilet building, compact the natural ground underlying the vault with a minimum of three passes with a whacker-type mechanical tamper or equivalent approved by the Engineer.

### 3.5 INSTALLATION OF GRAVEL BEDDING UNDER TOILET VAULTS

Install 12-inches of compacted gravel bedding material for leveling course. Compact leveling course with one pass with a whacker-type mechanical tamper or equivalent approved by the Engineer. Grade level course so there will be no high spots in middle of vault bottom. Finished leveling course shall not vary more than 0.01-foot for the four corners of the vault.

### 3.6 BACKFILL AND DISPOSAL OF DEBRIS

Backfill around structures, including under exterior slab. Use excavated material for backfill except that rocks larger than six inches in maximum dimension shall not be placed within six inches of exterior of vault walls. Stumps, roots, brush, and other vegetation shall be removed from the site and disposed of in a legal manner by the contractor.

### 3.7 FILL AROUND LATRINES AND SLAB

Spread excess excavated material from vault around structure. Final backfill surface shall be flush with the top of the front slab. Allowance shall be made for the depth of the topsoil. Grade backfill away from structure at maximum slope of five percent unless otherwise noted in the plans or specs or approved by the Engineer.

### 3.8 LANDSCAPING

Spread conserved topsoil as final 2-inch layer after rough grading is completed. Areas disturbed by excavation, backfilling, and stockpiling of excavated materials shall be hand raked to removed exposed rocks over one-inch in maximum dimension. Oversize rocks removed from the surface shall be disposed of off-site or with the approval of the Landscape Architect used as fill in other items in the contract.

### 3.9 HIDDEN GROUND CONDITION

If the contractor uncovers bedrock, boulders too big to remove, ground water or other unexpected conditions, he shall immediately contact the Engineer for instructions.

### 3.10 TEMPORARY FENCING

- A. All excavations left open overnight shall be fenced with polyethylene plastic safety fence, orange color, 48-inch high, and 4-inch maximum mesh openings. Fencing shall be secured to steel posts on the side away from the excavation unless otherwise approved in advance by the Engineer.
  - 1. The bottom of the fence shall generally follow the contour of the ground.
  - 2. Maximum spacing of the steel posts shall be ten feet.
- B. No excavations will be left open more than seven days unless otherwise approved by the Engineer.

3.11 PATHWAYS

- A. Construct a pathway between each latrine installation and the adjacent roadway or parking area. Requirements of each pathway are as follows:
  - 1. Utilize compacted gravel for all pathway surfaces as specified on the project drawings.
  - 2. Construct pathways that follow existing ground contours as much as possible. Limit excessive excavation and embankment.
  - 3. Cross slopes on the pathway shall be 2%.
  - 4. The running slope of the pathway shall not exceed 5%.
  - 5. Slopes will be checked using a 3-foot level.
  - 6. Ridges or other sudden changes in slope shall not exceed of 1/2-inch. The top surface of the path shall match the top surface of the Vault Latrine Slab within 1/2-inch.

**END OF SECTION 03/410**