

Statement of Work

1. Purpose:

To install approximately 1.88 kilometers of new bison paddock fence in Waterton Lakes National Park, including the removal and proper environmental disposal of approximately 1.88 kilometers of existing bison paddock fence wire, posts and related material.

2. Specifications and Description of Work:

2.1 Fence Posts:

- 2 & 7/8 inch (or larger diameter) x 21 foot or 30 foot sections of “red band” or higher quality drilling stem pipe (ERWJ55 standard) to be used. It must be inspected and free of visible defects such as thin walls or severe surface pitting, cracks, bends and damaged threads.
- Pipe that does not meet this quality standard will be refused and the contractor will be responsible for removing the rejected material from Waterton Lakes National Park.
- Preference will be given to drilling stem pipe used in gas wells rather than oil wells.
- The female threaded end may be used to splice two pieces to create a post of the appropriate length. In situations where the post pounder is hitting either a male or female threaded end, the pipe end must be protected to permit its future use.
- The posts will be put in the ground at 16 foot intervals. Posts will be 12 feet long: 4 feet buried in the ground with 8 feet above ground. The posts will be buried 4 feet in the ground/8 feet above ground. 3 ½ inch drill stem posts will be used on corners. All other posts will be 12-foot sections of 2 7/8 inch drill stem or larger diameter buried 4 feet into the ground. A chain link (1/4 inch diameter chain link or larger) will be mounted at the top of each post to hold the wire. Where the wire changes significant vertical direction or where there is a concern about the wire moving up the posts a bottom chain link hook (1/4 inch diameter chain link or larger) will also be welded on the posts. Fence will be tied to each post with a minimum of 4 galvanized wire ties. Ground anchors will also be used in select locations where terrain requires their use to ensure fencing wire stays on or near the ground surface.



Typical chain link top hook on fence post



Typical chain link bottom hook on fence post

- All corner posts must have welded cross members to support the fence (see photos below). Corners have been designed to have 10 feet between fence posts. Two horizontal welded cross bars at 4 and 8 feet above the

ground will be installed on each side of the corner. One diagonal cross bar will be welded on either side of the corner section with the horizontal cross bars. The use of a prefabricated bracket and sleeve using channel iron and pipe sleeves to weld the horizontal and diagonal cross bars on will be allowed if a pre-approved design is to be used.



Corner design with a gate component



Corner design with no gate component



Examples of approved channel iron brackets and pipe sleeves for attaching horizontal crossbars.

- Ground in the project area is comprised of glacial till composed of rocks, gravels and clay. Parks Canada has not done specific geotechnical investigations of the project site. Contractors need to factor in the potential for post installation taking longer than anticipated due to rocky sub-surface ground conditions when compiling their bid.

2.2.1 New Fence Material:

“Solidlock” game fence: 8 feet tall with 6-inch stay 12.5 gauge high tensile wire. The fence will be tied in at least 4 places per post with galvanized wire ties. The fence will sit on top of the ground when installing.

2.3 Fence with Horizontal Crossbars:

- Three sections totalling approximately 544 feet in length will require horizontal crossbars between vertical posts at 8 feet above the ground. Two sections are located along the Summer Paddock west fence. Both of these sections are 8 X 16 feet long = 128 feet. They are located 4 X 16 feet apart = 64 feet apart. The third section is along the “V” section of the Summer Paddock south fence. It is 18 X 16 feet = 288 feet long. Horizontal crossbars are a snow drift mitigation strategy. Fence wire will be tied to the horizontal rail with at least 4 wire ties per 16-foot section in addition to a minimum of 4 ties to each vertical post.



Southern section of North-South fence requiring 8-foot horizontal crossbars



Northern section of North-South fence requiring 8-foot horizontal crossbars

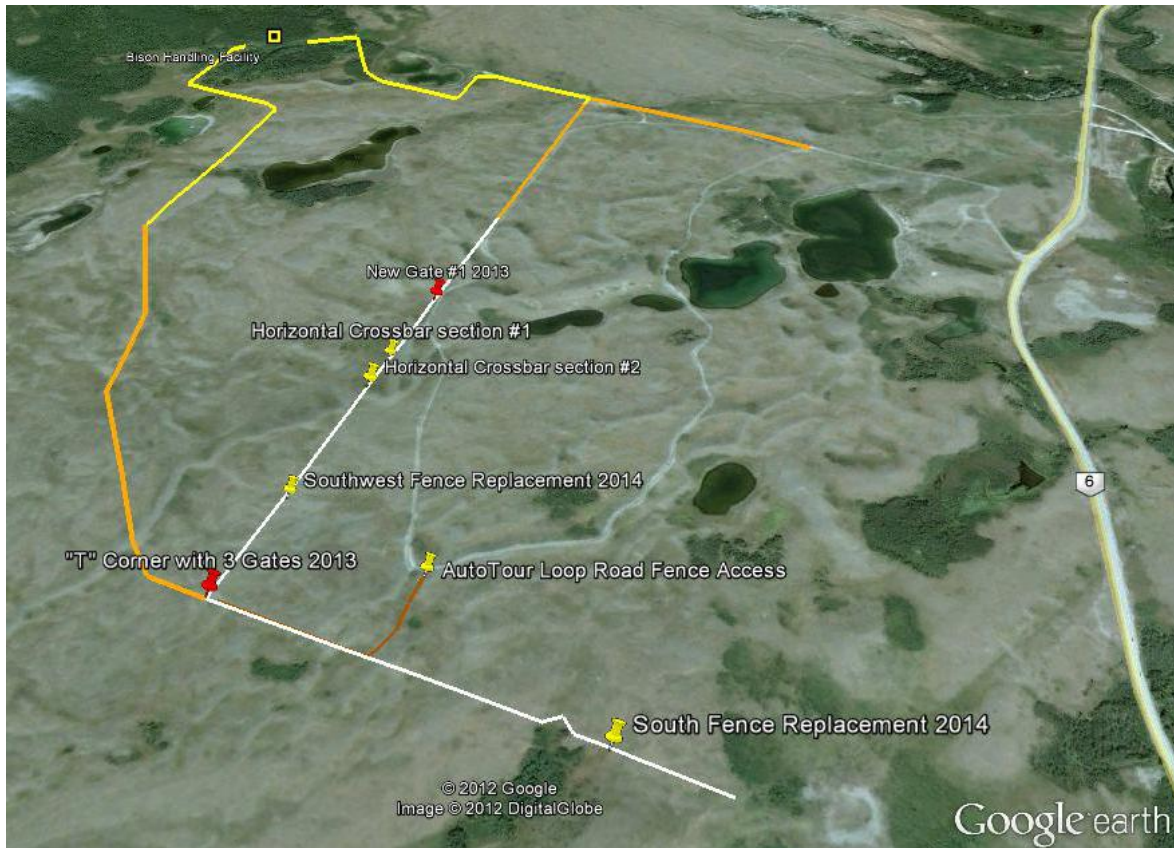


“V” Section of South Summer Paddock fence requiring 8-foot horizontal crossbars

2.4 Old Fence:

- The contractor will be responsible for the removal and environmental disposal of all old fence-related material for the **1.88 kilometers** of old fence being removed as part of this project.
- Disturbed areas must be reclaimed to Parks standard and reseeded with a native seed mix approved by Waterton Lakes National Park staff.

2.5 Fence Section Requirements:



Orthophoto showing Bison Fence (in white) to be replaced in fall 2013

Replacement of South section of Summer Paddock Fence: This section of east-west fence is about 810 meters in length.

Replacement of South section of Summer-Winter Paddock Fence: This section of north-south fence is about 1070 meters in length.

2.6 Access: Parks Canada reserves the right to control the specific access points to the fence line in question in order to ensure the ecological integrity of Waterton Lakes National Park. Access and travel along existing fence lines or along specific routes will be determined and specified by Parks Canada staff. Access routes to the work site are not negotiable. Failure to follow the approved access routes may result in charges being laid under the Canada National Parks Act and associated Regulations.

3. Other Requirements:

- Due to the locations of the fence being replaced, care must be exercised at all times to ensure bison do not escape from the facility, or travel between paddocks. Bison are wild animals and contractors need to be cautious if bison are in the vicinity of the worksite.
- The contractor must ensure all pipes and products have been properly inspected prior to start date. A Parks Canada representative will inspect all pipes as per the Standard specified in this Statement of Work and reserve the right to refuse any pipe that does not meet Parks Canada criteria as per the project Statement of Work.
- Mandatory EA mitigation meeting prior to commencement of work is required, and the date and time will be determined by Parks after the Contract award.

- The contractor must follow all safety precautions and have a written plan for spills and environmental concerns while working in the park. All contractors and workers must go through an environmental awareness with Resource Conservation staff prior to the project start date.
- Fire suppression equipment (e.g. fire suppression backpack pumps) must be provided on-site by the contractor. In the event that fire hazard reaches "extreme", Parks Canada will arrange a schedule with the contractor to have Initial Attack fire crew on hand during welding.
- All contractor/sub-contractors must have a valid Parks Canada Business Licence prior to commencement of work. This can be obtained by contacting Bonnie Scott, Acting Municipal Officer at 1-403-859-5117.

4. Schedule:

The contractor shall provide the Parks Canada representative with a detailed work plan schedule.

5. Communications:

- The contractor must submit a list of key contractor personnel, including names positions and telephone numbers.
- **The specific locations of fence that is to be removed and replaced will be viewed on-site and discussed prior to start up date.**
- **Start date: On or after September 11th, 2013.**
- **Completion date: October 30th, 2013.**

6. **Environmental Assessment Screening Report Form** is attached to this Statement of Work.