

Department of Corrections
Montana State Prison
Long Range Building Request
Improve Water System-MSP
Page 85 - 87 LRBP Book Statewide Priority #11
Requesting \$125,000.00

A viable and fully functional water system is critical to the efficient operation of Montana State Prison. The three potable water wells and storage reservoirs provide an adequate level of capacity and redundancy to meet normal prison demand and emergency fire flows as long as all components of the system are maintained.

Project Overview: To maintain continued effectiveness of the water system this project request involves the following improvements:

- ❖ Complete the rehabilitation of Well #1 with a new submersible pump
- ❖ Conversion of prison grounds irrigation from potable to non-potable sources.
- ❖ Addressing of silt in the water system which has a large impact on the facility plumbing and equipment used by the laundry, cannery, food factory and other locations.

Failure to address the issues with the current water system impacts facility operations and security in all aspects as adequate water levels are critical to daily activity.

Additional detail on the project for your individual review and information.

Well #1 is one of three wells that serve the potable water needs of Montana State Prison. It was drilled in 1956 and drill log and water rights are on record. It is situated in a stable aquifer and measurements indicate this well is capable of producing approximately 15,700 gallons per hour (261 gpm) which amounts to 30% of the entire production capacity of the prison's potable water.

The pump in Well #1 is failing due to age and must be replaced with a new submersible pump.

As funds remain subsequent to the rehabilitation of Well #1, other improvements intended to maximize system performance and water quality will be implemented. Other improvements would include disconnection of non-potable needs from the

potable system and would investigate the correction of sediment contamination with the system.

Well #2 introduces substantial quantities of silt into the public water system, which causes a large amount of plumbing related problems for the housing unit's plumbing system and laundry equipment. Problems related to the injection of this silt are seen in all of the other operations that require large quantities of water for normal operations such as: Food Factory; Cannery; Ice Machines; Food preparations on both High and Low Side Food Service.

The prison's potable water system also supplies the water to irrigate the lawns within the double and single perimeter fenced compounds. This request will also provide another means for this irrigation. This will relieve the potable water system from this demand during the spring and summer months.

Department of Corrections
Montana State Prison
Long Range Building Request
Improve High Side Kitchen Ventilation at MSP
Page 93 - 94 LRBP Book Statewide Priority #14
Requesting \$117,300.00

The High Side Kitchen at MSP has a floor area of 17,830 square feet, which includes the facilities for food preparation, baking and dining for the high security inmates. Food prepared in the Food Factory is rethermed in the High Side Kitchen before being served. Security improvements such as the implementation of a sightless feeding system and operational changes associated with the Cook Chill food process have resulted in issues with the airflow, temperature and ventilation of the building.

Project Overview: This project will update or replace the following:

- ❖ Temperature controls, air handlers and pneumatic controls will be replaced to control building temperature.
- ❖ Energy efficient lighting will be installed.
- ❖ Building doors and loading dock door will be replaced with energy efficient door.
- ❖ Air handlers, ventilation units, makeup air handlers and exhaust fans will be rebalanced, repaired and replaced.

This project will improve the operating temperature of the building for staff and inmates, adhere to food and health standards, improve airflow, and improve energy efficiency. This project is also utilizing additional funds from the Department of Environmental Quality Energy Savings Program (SBEP) of approximately \$112,775.

Additional detail on the project for your individual review and information:

HVAC System: Currently the building experiences very hot temperatures in the summer and very cold temperatures in the winter. The existing temperature controls and air handlers in the building are outdated and should be updated or replaced. Pneumatic temperature controls will be replaced with new digital control systems utilizing occupied/unoccupied control, economizer cooling, night setback temperature control, mixed air low limit control as well as other safeties.

Lighting: The existing lighting in the building is outdated and requires replacement with new energy efficient lighting.

Building Envelope: The building envelope needs minor modifications with the installation of new energy efficient doors. Building doors and windows are in poor condition due to high use and require replacement with energy efficient doors. The loading dock door leaks and would be replaced with a new energy efficient door with an automatic closing system.

Air Handlers: Air handlers, ventilation units, makeup air handlers, exhaust fans will be rebalanced to supply and exhaust the required amounts of air to meet current use of the building. If these units are deemed non-repairable, the unit will be replaced with the properly sized unit. The design temperatures of the new equipment in all spaces will be a maximum/minimum cooling of 80F/70F, heating 68F/72F and a maximum/minimum winter temperature of 75F/60F.

Refrigeration Equipment: Refrigeration equipment will be evaluated for replacement based on project budget and evaluation of energy savings.

Approval of this Long Range Building request, coupled with the addition of Department of Environmental Quality SBEP Energy Funding Program will correct these existing problems in the High Side Kitchen.

Department of Corrections
Montana State Prison
Long Range Building Request
Improve Perimeter Security - MSP
Page 153 - 155 LRBP Book Statewide Priority #35
Requesting \$1,400,000.00

In order for Montana State Prison to continue to provide protection to the public, it's employees and offenders; the condition of perimeter security is of utmost importance. MSP has a double fenced perimeter around the main prison complex, a single fenced perimeter around the Industries Complex and has just completed construction of a double fenced perimeter around the new Reception Unit.

Project Overview: This project request involves updating or replacement in the following three areas:

- ❖ Razor Ribbon (concertina tape) Replacement of the double fenced perimeter around the main prison complex. Razor ribbon was installed in 1980 with a life expectancy of 10 years. Existing condition of the razor ribbon is poor and need replacement. Cost estimate of \$ 203,472 is for the razor ribbon material. MSP staff will remove existing material and install the new material.
- ❖ Upgrade the existing single Industrial Complex Fence (estimated cost of \$250,000) and install fence detection system (estimated cost of \$696,528). Existing single fence is in poor condition and has been a security audit exception. Current detection equipment on this fence is not reliable and does not meet security standards. This project will also include upgrade of the fence detection map display in the Command Post.
- ❖ Reception Unit completed in May of 2004 has a double fence perimeter but does not have a fence detection system. This project will involve installation of a fence detection system, which will tie into the current fence surveillance system and fence detection map. Estimated cost of fence detection is \$239,000 with an additional \$11,000 for upgrade of the fence detection map in Command Post.

Failure to address these security issues may impact public and staff safety due to inmate escape, compromising of perimeter fence security and placement of inmates on work crews in the Industrial Complex.

Additional detail on the project for your individual review and information:

Razor Ribbon Replacement: This project will replace approximately 7170 linear feet of the brittle and broken concertina barbed tape, with the detainer barbed hook razor ribbon. It will upgrade the single fenced compound to a more durable and reliable fence detection system, which will be bid to a contractor. Because Montana State Prison has the unique expertise of working with concertina tape, project funds will purchase the concertina tape, protective gear and equipment for handling the tape. The removal of the existing material and the installation of the new material will be performed by MSP personnel in conjunction with inmate labor as deemed appropriate. The condition of the existing concertina tape is very poor. Over the years it has become broken and ineffective, creating a major breach in the double perimeter security fence. It is imperative that this be corrected.

Industrial Fence Upgrading: The final design of the upgrade to the Industries compound will need to be developed to provide a reasonable level of security for the inmates, provide for growth in the Industries compound, and provide for the safe and secure movement of vehicles into and out of the compound. The existing fence is in poor condition and has been a security audit exception. A newly designed fence and detection system would replace the existing fence creating a more secure and safe Industrial compound. The existing fence was constructed from the old perimeter, which was removed in the early 1980's. The fabric is not of heavy gauge and has many areas that have been patched and pieced together. This request will also provide for the upgrading of the display maps, which would include the Martz Diagnostic & Intake Unit compound.

Reception Unit Fence Detection: During the final stages of the bidding process, value engineering left this project with a double perimeter fence without a fence detection system. This request will allow for the installation of a detection system to be incorporated into the existing fence surveillance system. Interfacing will save considerable funding with the existing fence surveillance control system already in place.