Golf course designers regularly meet the challenge of designing courses to highlight the best of a site's natural terrain, but at Fort Ridgely State Park in Fairfax, Minnesota, course designer Jeff McDowell is also working to preserve the site's heritage. His partners in this effort are Park Manager Mark Tjosaas, state archaeologists, the state's historic preservation office and the Bureau of Indian Affairs.

One of two courses operated by the Minnesota DNR (The other DNR-operated course is at Fort Snelling.), Fort Ridgely is a nine-hole, walk-only course that currently features artificial turf greens. Originally built in the 1930s during the Great Depression by members of the Civilian Conservation Corps (CCC), the course was designed by an attorney who had never played golf, but had watched some friends play the game. That design, which included a putting green within feet of a building's front door, reflected the crude beginnings of American golf. A 1970s remodel updated the routing to improve safety and added the artificial turf greens.

To meet the demands of today's golfers, the course needed a complete re-design including multiple tee boxes for each hole, 6,000 square foot greens, a two-acre irrigation pond and a double-row irrigation system. The catch is that the work cannot disturb the historical artifacts.

In addition to unique CCC elements, the state wants to preserve historic landmarks from the mid-1800s, and Native American artifacts dating back as far as 10,000 years. "Incorporating the site's history is an essential element of the course re-design," said McDowell.

**A Short History Lesson**

Shards of pottery and other evidence of civilization dating back 10,000 years have been found at the Fort Ridgely site, said Tjosaas. Bison and elk roamed the area years ago, making the land attractive to Native Americans. In the summer months the Native Americans lived in the hills overlooking the Minnesota River Valley.

In 1855 the U.S. Army constructed Fort Ridgely. Other buildings followed, creating a village setting. The fort was near the southern border of a new Sioux reservation and also near to a new German settlement. The fort was never intended to be a defensive stronghold, but rather a training ground for Civil War volunteers and a station to maintain peace as settlers arrived to the area.

In 1862, however, Sioux leaders, increasingly frustrated with broken treaties and dishonest agents and traders, decided to take action. This was the start of the Sioux Uprising, also known as the U.S. - Dakota War.

On August 20, 1862, the Sioux attacked Fort Ridgely. With ravines on both sides of the fort, Sioux warriors could get to within 100 feet of the walls without being seen. Refugees from the surrounding area gathered at the fort. The U.S. soldiers were able to withstand this attack, as well as a second attack on August 22. The fort was never taken. The Sioux Uprising lasted 40 days and when it was over, 38 Sioux were executed, the largest mass execution in the country's history.

Following the Sioux Uprising the fort was still used, but gradually the many buildings that once stood on the site were torn down, Tjosaas explained. More than 12 foundations have been discovered near Fort Ridgely. The only major structure still standing is the fort.

**Making a Golf Course**

Planning for the new course began in 2003, when, with a project budget of $1.5 million, Bonestroo's team set about designing a new course that takes full advantage of the Minnesota River Valley bluffs, while positioning holes to avoid disturbing known historical areas.

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"On this project, the design process got turned upside down," said McDowell. "Usually, we pick the best tee and green sites, and then route fairways to those sites. The most dramatic tee and green sites had soldier or Native American artifacts that needed preservation. As the archeologist discovered artifacts, we moved golf features."

The three-year design process resulted in about a dozen routings, with only two putting greens and one set of tees staying in their original location. The irrigation pond has been re-sited three times to preserve shrapnel from the Sioux uprising and a pre-settlement fire pit found on the site.

Preservation of artifacts was additionally difficult since many artifacts were within a few inches of the surface. "Four of the five holes had artifacts so close to the surface that we were not allowed to disturb the topsoil," said McDowell. "In order to level the fairways for modern mowers, we had to import a thin layer of topsoil."

Another unusual design restriction was preserving the level landscape near the fort. "From an interpretive point of view, it's important that visitors to the fort have the same views today that existed during the Sioux Uprising," said McDowell. The deep ravines of the river valley allowed the Sioux to get close enough to attack, but the level land between the ravines and the fort allowed the soldiers to defend themselves. Four of the holes lie within this viewshed protection area. The greens for these holes have only three feet of mounding, and the back side of the mounds will be planted in prairie grasses. The idea is to create greens that when viewed from the fort look like small rolling hills in a prairie.

**Restoring the Landscape**

"When the course was originally conceived in the 1930s, few trees grew in the area. The landscape featured prairie grasses and scattered oak trees," McDowell said, a look he wants to restore. Fire suppression in the intervening years has allowed more trees to grow. To help bring back the native oak savannah, the DNR has removed more than 20 acres of trees, and in the process has restored the dramatic views of the Minnesota River Valley. Over 25 acres of native prairie seeding will begin the process of restoring the course to its early 1900s appearance. The end result for Fort Ridgely is a golf course that will feature challenging holes, a spectacular natural setting that could serve as its own visitor destination and an historical experience like no other.

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