

Yankton Sioux Tribe Justice Center



This project renovated an old moccasin factory in southeastern South Dakota to serve as a juvenile and adult corrections center for the Yankton Sioux Tribe. The building is an existing single-story facility with new mezzanine sleeping areas, totaling a little over 20,000 square feet. The facility includes 16 cells configured for flexible use for both adult and juvenile inmates, as well as shared classroom and indoor recreation areas. Other functions of the facility include intake and booking (separate areas for juveniles and adults), administrative areas, full commercial kitchen and laundry. The building was designed to satisfy BIA and ACC standards. (2006)

Project Data

Owner

Yankton Sioux Tribe Correctional
Ella Rae Stone
605-384-5712

Location

Wagner, South Dakota

Building Type

Institutional

Building Area

20,000 square feet

Mechanical Systems / Features

Domestic Hot Water
(160°F – Kitchen/Laundry)
(125°F – General Building)
NFPA 13 Fire Sprinkler
IBC Smoke Control Standards
DDC HVAC/Smoke Control

Electrical Systems / Features

Vandal Resistant Design
Emergency Generator
Fire Alarm
Communications Raceways

Construction Cost

\$6,360,000

Completion Date

Phase I, scheduled 2008

Mechanical Engineering

The HVAC systems for the housing units, classroom areas and administration areas are split system air-to-air heat pumps with supplementary electric heat, which were selected based on the Owner's desires for low first cost heating and cooling. A propane system was provided to serve the kitchen, water heating, laundry, and make-up air for the kitchen. Building controls consist of a complete direct digital control system with central operator computer interface with provisions to minimize electric demand costs.

Plumbing designs include domestic cold water system, domestic water heating system (160°F Kitchen and Laundry, 125°F Building), 7-day water softening system, and security-type plumbing fixtures.

The entire facility will be served by an automatic fire sprinkler system based on NFPA 13. Sprinkler protection: ordinary-hazard group I. In addition, standpipes were designed based on NFPA 14, Class 3 (both 1" and 2-1/2" hose valves, 1" hose). Smoke control design provided in conjunction with Owner preferences, Code and the BIA.

Electrical Engineering

Vandal-resistant lighting fixtures and accessible hardware. In addition, lighting control to interface to the security system provides lighting control for operation of power and fixtures within the Secure Units, Holding Dayrooms, and Recreation room areas.

A new main electrical service was specified to support using this facility as a justice center. The service is a 2500 amp, 208v, 3-phase system. A stand-by 250KW diesel generator is specified to backup critical portions of the facility, including HVAC systems to support smoke controls..

A complete, total area coverage addressable fire alarm system suitable for this I-3 occupancy (voice evacuation with paging quality speakers) will be provided. Security, Telephone/Data, and Television Systems will also be provided.