

U.S. Department of the Interior  
 Assistant Secretary – Indian Affairs

Office of Facilities,  
 Environmental and  
 Cultural Resources

# MANAGEMENT *Summary*

## Fiscal Year 2010 14 Major School Projects Open

The most active year ever for the Office of Facilities Management and Construction (OFMC) saw six replacement schools, five replacement facilities and three Facilities Improvement & Repair projects completed in FY2010. The facilities will serve nearly 3,800 Indian students in six states, with some construction projects proceeding from gold shovel ground breaking to ribbon cutting opening in just over one year.

*Standing Rock Elementary School, North Dakota*



*Ch'osgai Community School dorm, Arizona*

### From Smiles to Cheers in 14 Months

Six replacement school projects originated from the FY2004 replacement school list printed in the Federal Register, while the other Facilities Improvement & Repair and replacement facility projects stemmed from priority ranking in the Facilities Management Information System (FMIS) backlog database.



Groundbreaking October 2008

OFMC constructed the 33,000 square foot Beclabito Day School near Shiprock, N.M., in 14 months.

### Beclabito Day School

Beclabito Day School, New Mexico



Dedication December 2009

With these completed projects and with the completion of 110 OFMC projects funded by the American Recovery and Reinvestment Act of 2009, the number of Indian Affairs schools listed in "poor" condition in FMIS will be lowered to 63. In FY2001, 120 of 183 Bureau of Indian Education schools and residential dormitories were in poor condition.

# A Summary of the 14 Projects of FY2010

Bread Springs Day School, New Mexico, is a (2004) replacement school for a projected 153 students in grades K-3. The project includes three employee housing units and a bus shelter. The square footage is 32,192 for academic; 3,640 for three quarters and 3,808 for a bus shelter. The OFMC project manager is Melvin Tsethlikai, Zuni, of the Gallup Region.

Beclabito Day School, New Mexico, is a (2004) replacement school for a projected 128 students in grades K-4. The square footage is 33,000 for academic and 7,000 for three employee housing units and a bus shelter. The OFMC project manager is Phil Sarracino, Laguna Pueblo.

Kayenta Community School, Arizona, is a replacement school for a projected 450 students in grades K-8 along with a dormitory for 119 students in grades 1-8. The square footage is 78,610 for academic and 24,913 for the dormitory. The OFMC project manager is Phil Asmus.

Ojo Encino Day School, New Mexico, is a (2004) replacement school for a projected 280 students in grades K-8. The project includes an elevated water storage tank and a bus shelter. The square footage is 52,200 for academic. The OFMC project manager is Andy Robinson, Northern Cheyenne.

Pueblo Pintado Community School, New Mexico, is a replacement school for a projected 389 students in grades K-8 along with a dormitory for 96 students in grades 1-8. The square footage is 71,011 for academic and 21,233 for one dormitory. (Another 15,000 square foot dormitory serving 76 students in grades 1-6 is being constructed with ARRA funds). The project features a ground source heat pump cooling and heating system and is seeking a LEED Silver certification. The OFMC project manager is Dineh Benally, Navajo.

T'iists'oozi'bi'olta (Crownpoint), New Mexico, is a (2004) replacement school for a projected 497 students in grades pre-K-8 along with a dormitory for 101 students in grades 1-8. The square footage is 85,172 for academic; 23,209 for the dormitory and 1,361 for the central plant. The project is seeking LEED Silver certification. The OFMC project manager is Dineh Benally, Navajo.

Wingate High School, New Mexico, is a replacement high school for a projected 800 students in grades 9-12 and two dormitories for 508 students in grades 9-12. The square footage is 143,077 for

academic; 137,879 for the two dormitories and 2,668 for the central plant. The project is seeking LEED Silver certification. The OFMC project manager is Dineh Benally, Navajo.

St. Stephens Indian School, Wyoming, is a replacement facility for 100 students in grades 9-12. The square footage is 43,000 for academic. The OFMC Project manager is Bruce Ward of the Rocky Mountain Region.

Standing Rock Elementary School, North Dakota, is a replacement elementary school for a projected 401 students in grades K-5. The square footage is 62,760 for academic. The project features a ground source heat pump cooling and heating system and is seeking LEED Silver certification. The OFMC project manager is Phil Sarracino, Laguna Pueblo.

Chemawa Indian School dormitory, Oregon, is a (2004) replacement dormitory for a projected 420 students in grades 9-12. The square footage is 80,489 for the dormitory. The OFMC project manager is Phil Asmus.

Pierre Indian Learning Center dormitory, South Dakota, is a Facilities Improvement & Repair dormitory for a projected 197 students in grades 1-8. The square footage is 50,000 for the dormitory. The project features a ground source heat pump cooling and heating system and is seeking a LEED Silver certification. The OFMC project manager is Mark Eberhart.

Ch'ooshgai Community School dormitory, New Mexico, is a Facilities Improvement & Repair dormitory for a projected 150 students in grades 1-8. The square footage is 32,000 for the dormitory. The project is seeking LEED Silver certification. The OFMC project manager is Mark Eberhart.

Pine Ridge School dormitory, South Dakota, is a Facilities Improvement & Repair dormitory for 132 projected students in grades 1-12. The square footage is 40,000 for dormitory. The project features a ground source heat pump cooling and heating system. The OFMC project manager is Phil Sarracino, Laguna Pueblo.

Rough Rock Community School dormitory, Arizona, is a Replacement School dormitory serving the new elementary school campus. The dormitory is 20,333 square feet and will serve 86 students in grades K-8. The project is seeking LEED Silver certification. The OFMC project manager is Phil Asmus.



## Pine Ridge School Dorm Opens in South Dakota

The 40,000 square foot Pine Ridge School dormitory (below) in South Dakota opened in August with a celebration featuring an address by Chief Oliver Red Cloud (left). Listening are Pine Ridge Education Line Officer Norma Tibbitts (far left) and Allie Bad Heart Bull.



*Seventh Graders Kitana Kenneth (below) and Shantell Benally await their dance performance during the August school open house at T'iis ts'ozí bi' olta in New Mexico.*



## Celebration Marks School Opening at T'iis Ts'ozí bi'olta

Student dancers were featured during the August opening of the K-8 replacement school and dormitory (upper right) at Crownpoint, N.M. The school is built for a projected 497 students, including 101 residential students.



## EQUIPMENT CENTER FILLS SCHOOLS AND DORMS

OFMC's Equipment Planning and Distribution Center purchased furnishings and equipment for six of the 14 facilities opening in FY2010, including nearly 600 DELL for computers for students and staff along with IT telecommunications infrastructure, smart boards and wireless networks. The Center ordered thousands of desks, office furniture and janitorial equipment such as floor machines which include riding and push type scrubbers and buffers and basic janitorial equipment. Some schools got art instruction equipment, such as a kiln, a potters wheel and art tables. Schools with athletic facilities received exercise training equipment such as free weights and cardio equipment, and concession equipment, such as popcorn poppers, hot dog steamers, microwaves and condiment stations. Some schools got a scoreboard and all got a personnel lift. Dormitories got beds, desks and lounge furniture, along with foosball and pool tables. Dorms got dozens of washer/dryers and some schools got a heavy duty, stack-front-load washer dryer combo.

## SAFETY ASSURED AT NEW FACILITIES

Ensuring American Indian students can learn and reside in safe facilities, the Division of Safety and Risk Management (DSRM) conducted a total of 107 plan reviews for the 14 facilities opening in FY 2010. DSRM reviews architectural and engineering drawings, specifications, shop submittals, and all other documents constituting the technical portion of the bid document for construction and major rehabilitation or repair of facilities to ensure compliance with Indian Affairs adopted codes, Bureau policy and mandatory standards. The Division also conducts final inspections for new construction and major renovation projects and then issues a Certificate of Occupancy.

# Wingate High School Completes OFMC's Largest Project

The August 23 dedication of Wingate High School near Gallup, N.M., marked the conclusion of a massive, two-school complex, totalling nearly 500,000 square feet of academic and residential space.

Wingate Elementary School opened in 2005 for a projected 850 students, including 550 residential students, in grades K-8. Square footage is 120,723 for academic and 103,612 for dormitories. The elementary school's equipment purchase featured \$500,000 worth of computers, smartboards and printers. There were 552 wastebaskets, 204 mops

and 25 janitor carts purchased. The former elementary school featured nine historic rubble stone buildings.

The now completed Wingate High School, which had its ground breaking in 2006, was built for a projected enrollment of 800 students, including 508 residential, in grades 9-12. The high school's square footage is 143,077 for academic and 137,879 for dormitories. There were 528 beds and 400 cafeteria chairs ordered for this project. The old high school is a 1960s era compound that will be demolished.



*Miss Wingate High School LaToya Johnson celebrates her new school's opening with OFMC Deputy Director Emerson Eskeets and Acting Chief, Division of Design and Construction, Barbara Borgeson.*



## ARRA Funds Dorm at Rough Rock

The first replacement school project funded by the American Recovery and Reinvestment Act of 2009 - the elementary school dormitory at Rough Rock Community School (left upper & lower) - was completed in 2010.



## Drums Beat for Chemawa Dorm Opening

Chemawa Indian School's new dormitory, housing 400 residential students, opened with traditional drumming (right upper & lower) in March. It replaces several residential cottages at the Oregon school.





## Challenges

### Cooperation Paved the Road to Bread Springs

The undeveloped site for the Bread Springs Day School was one half mile east of New Mexico Highway 602 amid a forest of pinon and juniper trees. To establish utilities and provide a roadway to the replacement school and three new employee quarters, the Navajo Nation and BIA joined together to fund construction of a water tank and an access roadway.



*Project Manager Melvin Tsethlikaii of Zuni Pueblo and Navajo Regional Facility Manager Joe Bitsie, Navajo, (far right) share in the 2008 Bread Springs School ground breaking.*



### Ojo Encino's Insulated Walls Built Off-site



Ojo Encino Day School in New Mexico is Indian Affairs' first design-build replacement school to have its classroom walls and roof built using Structural Insulated Panel Systems (SIPS). Formed off-site and trucked to the school, each panel sandwiches framing, insulation and sheathing, leading to a dramatically increased insulation R-factor. The result will be lower heating and cooling costs. The OFMC project manager is Andy Robinson, Northern Cheyenne Tribe.



*Robinson*

### Standing Rock, Pierre, Pine Ridge and Pueblo Pintado Go Underground

OFMC is expecting to save thousands of dollars in future operating costs due to installing ground source heat pump, closed loop systems for heating and cooling at the new Pine Ridge School and Pierre Indian Learning Center dormitories in South Dakota and at the replacement schools at Standing Rock in North Dakota and at Pueblo Pintado in New Mexico. Initial results from other OFMC school projects using the technology show savings in heating and cooling costs reaching more than \$100,000 annually, especially for schools in the northern tier of Indian Country where winter temperatures are extreme. The ground source heat pump systems take advantage of the earth's ground temperature to heat and cool a water-glycol mixture that circulates into the ground and then is routed



*Sarracino*



*Benally*

to classroom heat pumps. Properly adjusting outside air intake into classrooms is critical to the success of the system, though the OFMC School Facilities Design Handbook energy use criteria requires at least 15 (cfm) cubic feet of outside air for each student or minimal carbon dioxide levels in occupied rooms of no more than 400 +/- 50 parts per million (ppm) greater than outdoor air. The OFMC project manager for the Pine Ridge School dormitory and for the Standing Rock Elementary School is Phil Sarracino, Laguna Pueblo, while Dineh Benally, Navajo, is the Project Manager for Pueblo Pintado School. Mark Eberhart is the Project Manager for the Pierre Indian Learning Center dorm.



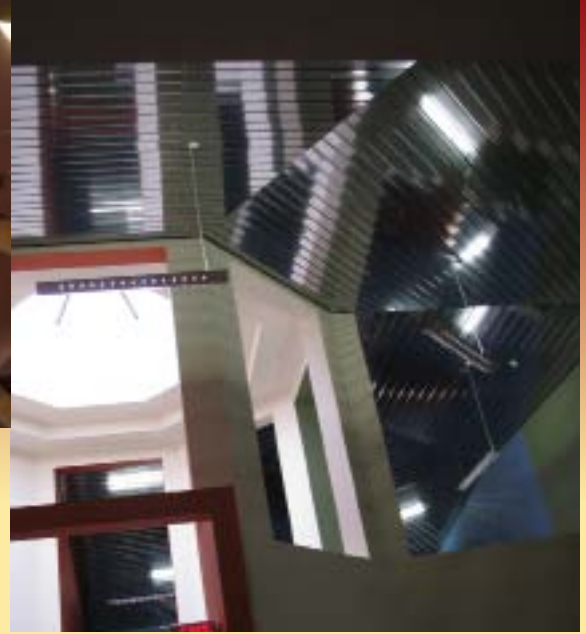
*Tubes linking the ground source heat pump wells next to the new Pine Ridge School dormitory in South Dakota emerge through a spring 2009 snow.*

*A central pump control area at Pueblo Pintado School in New Mexico sends a water/glycol mixture from underground to classroom heat pumps.*





Daylight streams through the skylight in the rotunda of Standing Rock Elementary School in North Dakota. The small, exterior openings in the upper portion of the rotunda allows the sunlight to project star constellations onto the interior wall surface and stretched fabric. For example, the Bear's Lodge constellation, culturally associated with the Bear's Lodge land form and the Summer Solstice, will project on the fabric each June 21st.



Through openings in the walls, the stainless steel ceiling inside Kayenta Community School's dormitory atrium reflects Arizona sunlight from the central skylight.

## Looking Up Day Lighting Enlivens Academics

Many of OFMC's new schools and dormitories opening in FY2010 have made impressive use of day lighting—natural daylight from skylights. Daylight can add to a positive feeling among students and staff at Indian Affairs schools, along with possible improved academic performance. A 1999 study by a California energy consulting firm showed that students performed 19 to 26 percent better in classrooms with skylights or natural lighting systems. The study suggests that student performance, especially in math and reading, is enhanced with natural lighting.

Because schools and dorms

which feature skylights in their ceiling designs will have a lessened dependence on electric lighting, day lighting is viewed as a means of assisting Indian Affairs in complying with the Energy Policy Act of 2005 directive to achieve energy savings of two percent a year through

2015 throughout the agency. Also, day lighting is a point in the rating system defined by the U.S. Green Building Council in order to determine if a building warrants a Leadership in Energy and Environmental Design (LEED) Certificate. In 2006, OFMC adopted the LEED rating system for its new construction. It is anticipated that OFMC will update its rating system in line with the newly established LEED "schools" category.



Wingate High



Ojo Encino



Pine Ridge



Chemawa



Beclabito