Office of Facilities, Environmental and Cultural Resources

Management Summary

Modular Classroom to be Helicoptered into Grand Canyon

OFMC's Modular Building Program will increase educational space at Havasupai Elementary School in Supai, Ariz., this year by installing a modular classroom building at the school, located in the Grand Canyon.

The modular building will be taken to Long Mesa, 2,000 feet above the school, and airlifted in four sections by helicopter to the canyon floor where it will be assembled on a concrete foundation, said Truxton Canyon Agency Supt. Jim Williams. The only access to the Havasupai Indian Reservation village—and the only way to bring in supplies and materials—is by helicopter or by mule train along an eight-mile trail.

Havasupai Elementary School Principal Greg Mooring said the school, which has 94 students in grades K-8, needs the additional classroom space. A new rest room in

the modular building will be especially welcome, he said. "We only have two rest rooms now and a lot of times they are out of service."

Other Indian Affairs buildings in Supai village, such as Office of Justice Services and Bureau of Indian Education employee quarters, were constructed at the bottom of the canyon after materials were airlifted in, said James "Clint" Walker, Truxton Canyon Agency facility manager.



Go to the OFECR intranet website to watch a video report on the Havasupai modular project.

Salazar Visits Riverside; Echo Hawk at Chemawa, Celebrates with Santa Fe Indian School

With construction of the OFMC-funded replacement dormitory about to get underway at Riverside Indian School, Interior Secretary Ken Salazar made

HEMAWA DORMI

Northwest Regional Facility Manager Mike LaPlante (left), BIE Director Keith Moore and Assistant Secretary-Indian Affairs Larry Echo Hawk tour the Chemawa Indian School dorm.

a March visit to the Oklahoma school, where he viewed in Oregon, including its new conditions in the soon-to-be-replaced 1930s-era dorms.

Assistant Secretary-Indian Affairs Larry Echo Hawk participated in the February opening of the Santa Fe Indian School's Pueblo Pavilion Wellness Center in New Mexico. Echo Hawk said ARRA funding helped leverage funding from tribes, the U.S. Department of Commerce and the State of New Mexico to complete the gymnasium.

In January, Echo Hawk toured Chemawa Indian School



Accompanied by Supt. Tony Dearman (left), Interior Secretary Ken Salazar reviews dorm conditions at Riverside Indian School in March.

replacement dormitory.



Echo Hawk (right) and OFECR Director Jack Rever at the opening of Santa Fe Indian School's Pueblo Pavilion Wellness Center.

Briefs

Recycling Catches On as Sustainable Practice



Wind River Agency Branch of Irrigation Accounting Technician Leslie Underwood utilizes recycling bins at her Wyoming office.

Indian Affairs' focus on sustainable practices has prompted recycling efforts at schools, agencies, administrative offices and even detention centers. Many locations are recycling office paper-placing it into special bins. If office paper is mixed with newspapers, cardboard, packaging, paper bags, etc., it can no longer go back into making recycled office paper, because these other types of paper do not have strong enough fibers to manufacture office paper. Indian Affairs' recycling efforts are electronically tabulated annually by the Division of Environmental and Cultural Resources Management and forwarded to the President's Council on Environmental Quality.

New Fire Stations Coming to Navajo Region Schools

Dilcon and Black Mesa community schools in Arizona and Dibe Yazhi Habltin O'lta', Inc. (Borrego Pass Day School) in New Mexico will get new fire stations this year, stemming from FY 2009-2010 appropriations. The fire stations will be constructed according to OFMC's modular design template.

ARRA, OFMC Improve Indian Affairs Residential Dormitories

Right: KinLani Bordertown Dormitory Facility Manager Nolen Nelson stands where a new fence line will include an electric gate to allow access to the dorm. Below: Winslow Dormitory acting Facility Manager Michael Guzman operates the new dorm's electric gate.





BIE dormitories in Flagstaff and Winslow, Ariz., are installing the latest in fencing and electric gates to keep students secure. ARRA funds are being used to erect a mile-long, six-

foot-high fence (with two electric gates) around the 14-acre KinLani Bordertown Dormitory campus. A similar fence and gates were recently installed as part of the OFMC replacement school project at Winslow Dormitory.

Go to the OFECR intranet website to watch a video report on the KinLani fence and gates.



SIPI Maintenance Mechanic Bill Dyea with hot water panels.

Sun Heats SIPI Water

OFMC Energy Program funds were used to install solar hot water heaters for Golden Eagle and Four Winds lodges at the Southwestern Indian Polytechnic Institute in New Mexico, supplying 80 percent of the dorms' hot water.

Showers Rebuilt in Sherman Indian High School Dorms

ARRA funds are being used to renovate 11 buildings at Sherman Indian High School in California. In three dorms, shower areas that leaked and deteriorated the cement foundation were gutted, rebuilt and expanded for handicapped access.



Sherman Indian High School Facility Manager Leroy Tewahaftewa views a gutted shower room in a dormitory at the California school.

OFMC's ARRA **Project Checklist**

As of March 22, 2011, the project is:

Underway

Completed

Replacement Schools

Rough Rock Community School. Ariz.

Crow Creek Tribal School, S.D.

Pueblo Pintado Dormitory, N.M.

Ojibwa Indian School, N.D.

Kaibeto Boarding School, Ariz.

Santa Fe Indian School, N.M.

St. Francis Indian School, S.D.

Energy Projects

Little Wound School, S.D., water conservation

Wounded Knee District School, S.D., cooling

Crazy Horse School, S.D., lighting

Crazy Horse, service and distribution

Eufaula Dormitory, Okla., HVAC

🗸 Eufaula, lighting

Jones Academy Dormitory, Okla., HVAC

Jones Academy, lighting

San Simon School, Ariz., cooling

Southwestern Indian Polytechnic Institute, N.M. water line

Haskell Indian Nations University, Kan., heat pumps 🗸 Indian Island School, Maine, waste storage

Haskell boiler

Greyhills High School, Ariz., cooling

Dibe Yazhi Habitiin Olta Inc., N.M., lighting

Chemawa Indian School, Ore., lighting

Bogue Chitto Elementary School, Miss., cooling

Conehatta Elementary School, Miss., cooling

Standing Pine Elementary School, Miss., cooling

Choctaw Central High School, Miss., boiler

Choctaw Central, HVAC

Tucker Elementary School, Miss., cooling

Pearl River Elementary, Miss., cooling

Facilities Improvement & Repair San Simon, lighting

Standing Rock Community School, N.D.

Flandreau Indian School, S.D.

Nenahnezad Boarding School, N.M.

Marty Indian School, S.D.

Pine Hill Schools, N.M.

Kin Dah Lichi'i Olta (Kinlichee), Ariz.

√ T'lis Nazbas Community School, Ariz.

Yakama Tribal School, Wash.

Sherman Indian High School, Calif.

Hopi Junior-Senior High School, Ariz.

✓ Cibecue Community School, Ariz.

Ch'ooshgai (Ph II), N.M.

Pine Ridge School, S.D.

Hunters Point Boarding School, Ariz.

✓ Oneida Tribal School, Wisc., insulation

✓ Eufaula Dormitory, Okla., fire sprinklers

✓ Jones Academy Dormitory, Okla., insulation

Haskell emergency telephone system

Pearl River Elementary School, Miss., paint

Building Projects

Haskell emergency intercom

Haskell wheelchair lift

Pearl River water closets

Haskell plumbing

Roofing

Cheyenne-Eagle Butte School, S.D.

Northern Cheyenne Tribal School, Mont.

Oneida Tribal School, Wisc.

Hannahville Indian School, Mich.

Haskell Indian Nations University, Kan., battery Circle of Nations School, N.D.

Eufaula Dormitory, Okla.

San Simon School, Ariz.

Southwestern Indian Polytechnic Institute, N.M.

Santa Clara Day School, N.M.

Choctaw Central High School, Miss., fire walls Taos Day School, N.M.

✓ Ohkay Owingeh School, N.M.

✓ Santa Clara Day School, N.M.

Indian Township School, Maine

Choctaw Central, Miss.

Site Projects

Takini High School, S.D., demolish

Pierre Learning Center, S.D., demolish

Riverside Indian School, Okla., water tower

St. Stephens Indian School, Wyo., paving

Jemez Day School, N.M., water line

Santa Clara Day School, N.M., downspouts

Santa Clara, repaving

✓ Taos Day School, N.M., repaving

Ohkay Owingeh School, N.M., repaving

Tesuque Day School, N.M., repaving

KinLani Bordertown Dorm, Ariz., fencing

Dibe Yazhi Habitiin Olta, Inc., N.M., sewer

Dibe Yazhi Habitiin Olta, water

Pine Springs Day School, Ariz., sewage lagoon

✓ Pine Springs, water tower

Winslow Residential Hall, Ariz., fencing

Chemawa Indian School, Ore., water tower

✓ Indian Township School, Maine, waste storage

✓ Tucker Elementary School, Miss., playground

Choctaw Central High School, Miss., paint

✓ Choctaw Central, excavate

✓ Tucker Elementary, roadway

Tucker Elementary, repaving

Pearl River Elementary School, Miss., parking

Detention Centers

Turtle Mountain Detention Center, N.D.

Hopi Detention Center, Ariz.

Walter Minor Detention Center, S.D.

Fort Belknap Detention Center, Mont.

Land Mobile Radio

Kitt Peak, Ariz.

Dry Lake/Old Summit, Ariz.

Hilltop, Ariz.

San Carlos headquarters, Ariz.

Pinal Mountain, Ariz.

Hotevilla, Ariz.

Employee Quarters

Northern Cheyenne Tribal School, Mont.

Chi-Chil'tah/Jones Ranch, N.M.

Ojo Encino Day School, N.M.

Dibe Yazhi Habitiin Olta (Borrego Pass), N.M.

3

Adding Space at Taos Day School Pueblo Community's Gymnasium

Added to FMIS, Gets O&M Funds

Taos Pueblo gym is inspected and measured for FMIS.

To provide Taos Day School students with an indoor exercise facility, OFMC, school administrators and Taos Pueblo officials have agreed to allow the K-8 students to use the Pueblo's nearby community gymnasium.

The gymnasium was inspected and measured for inclusion in FMIS and will be receiving Operations & Maintenance (O&M) funding, in line with 25 CFR Ch.1 Part 32, BIE's Mission Statement: "The Bureau shall manifest consideration of the whole person, taking into account the spiritual, mental, physical and cultural aspects of the person."

OFMC's acting Southwest Regional Facility Manager Becenti Wilson said the community's gymnasium is a short walk from the school. Its use saves OFMC from having to fund a replacement project to build a new gymnasium attached to the school. The ownership of the gym remains with the tribe.

One of the provisions in the agreement which allows OFMC to fund O&M for the tribally owned facility is to keep times for public use of the building separate from the times students are using it—keeping students secure while allowing OFMC to pay a commensurate percentage of the overall O&M, said Benjamin Atencio, Northern New Mexico Education Line Officer







Gone in 60 Seconds

OFMC's Space Reduction Program Removes 721,711 sq. ft.

721,711

OFMC

Major Demolitions Targeted in FY2011

OFMC's Space Reduction Program is targeting another banner year in demolition projects for FY2011. Ojibwe Indian School in North Dakota demolition was accomplished in November, while major spaces such as the former Wingate High School, Wingate Elementary School and Crownpoint Community School, all in New Mexico, are being considered for demolition, now that replacement facilities have been provided for them.



The FY2010 Government Performance Results Act (GPRA) called for 300,000 square feet in space reduction. That year, OFMC reduced space by 721,711 square feet.

Major sites were involved in the FY2010 space reduction (demolition or transfer of facilities) of 721,711 square feet, which far exceeded the FY2010 space reduction target set in the Government Performance Results Act (GPRA) goal, 300,000 square feet. Among the major projects were:

- Cherokee Central Schools in North Carolina.
- Chemawa Indian School dormitories in Oregon.
- Polacca Day School in Arizona.

Energy Costs Plummet in Replacement Schools and Dorms

The benefits of demolition can be seen in the case of the Chemawa Indian School dormitory, demolished for \$110,000. Recouping the cost of demolition from operation savings will only take several months.

The campus-wide natural gas bill was:

The campus-wide electricity bill was:

- January 2009 (with the old dorms) \$15,090.
- January 2011 (with new dorm) \$11,428.
- January 2009 (with old dorms) \$25,761.
- January 2011 (with new dorm) \$9,568.

(Four natural gas boilers are still being used to heat the entire campus. The old dorms had 20 natural gas hot water heaters, while the new dorm uses one 2,000 gallon, natural gas hot water heater.)

At Ojibwa Indian School, annual operating costs declined due to the demolition of the old 79,286 square foot campus

and the construction of the 121,912 square foot replacement school. Moreover, those costs declined by nearly two-thirds when figured by square footage:

- \$3.40 per square foot for the old campus.
- \$1.84 per square foot at the new campus.

In addition, a 44.5 percent decline in energy costs was seen at Cherokee Central Schools. The old 306,185 square foot combined campuses, a now-demolished elementary school and a high school that was transferred to the tribe, paid \$566,002 in energy costs (natural gas and electric) to operate in FY2009. The new campus paid \$461,982 in energy costs in FY2010. Per square foot, that decline is:

- \$1.84 per square foot for the old campus.
- \$1.02 per square foot at the new campus.

(OFMC pays 55 percent of the cost of operating the new Cherokee campus.)



Indian Affairs, Office of Facilities, Environmental and Cultural Resources

F

Focus

Talking Teachers and Listening Students Aided by Classroom Acoustics

The U.S. Green Building Council is including acoustical performance standards in its LEED for Schools rating system, utilized in OFMC's updated school construction handbook.

Most classrooms have undesirable reflections, reverberations, or echoes, which can interfere with students' abilities to understand the details of a teacher's lesson. Noise reduction can make the classroom less stressful for teachers straining to be heard and students trying to hear—easing the physical stress on teachers' voices. In fact, a Canadian report stated voice fatique and throat illnesses account for as much as 11 to 16 percent of teacher absenteeism.

There are two main sound sources creating particular challenges and distractions in classrooms. The first is interior noise such as HVAC system hums and neighboring classrooms erupting in response to a lesson; the second comprises exterior sources, including traffic, construction, and playground noise.

The maximum allowable classroom background noise level associated with the LEED minimum acoustical performance standards is 10 decibels (dBA) higher (perceived as twice as loud) than the background noise level recommended in ANSI S12.60. The enhanced acoustical performance requires not only a lower background noise level, but also that the walls, floor/

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Justice Complexes

Crownpoint Underway; Pine Ridge to Follow

As authorized by Congress, OFMC is funding part of the construction of the Crownpoint Justice Center in New Mexico and a court and law enforcement office adjoining the Pine Ridge Justice Center in South Dakota.

The Crownpoint project will include district court, corrections, law enforcement, probation, peacemaking program, prosecutors and public defenders. (The Crownpoint Judicial District of the Navajo Nation had a caseload of 8,357 in Fiscal Year 2009 and 7,976 in Fiscal Year 2010, according to news reports.) The addition to the Pine Ridge detention center will get underway later this year.

OFMC provides operations and maintenance (O&M) funding for 50 Office of Justice Services Judge Loretta Morris break ground for the detention centers throughout Indian Country.



Navajo Nation Department of Corrections Director Delores Greyeyes (left) and District Crownpoint Detention Center in December.

Justice Department Projects

Meanwhile, the U.S. Department of Justice (DOJ) is funding the construction of another 27 justice centers across Indian Country. These facilities may be eligible for O&M funding through OFMC, depending on future Congressional appropriations of O&M for the DOJ-built facilities.

OFMC School Design Standards Updated, Includes Acoustics

OFMC is updating its 2007 school construction handbook containing approved standard design templates for Indian Affairs-funded schools. A major adjustment in the revised handbook will be to formally incorporate the U.S. Green Building Council's Leadership in Energy and Design (LEED) School standards. While OFMC has been incorporating LEED for Schools criteria (since its inception in 2009) when approving individual project design, the original OFMC handbook stated that school design was to follow LEED-NC (New Construction) standards. The revised handbook will still require new school designs to attain LEED Silver certification, but in the newer LEED for Schools category. One effect of using LEED School criteria is that there are points earned for school classrooms designed with enhanced acoustics. According to the Collaborative for High Performance Schools, when noise levels in the classroom are too high, students and teachers lose the ability to intelligibly understand each other thereby directly affecting student performance. (See Focus article on this page.)

New school designs will continue to be based on local geography and culture, on the enrollment guidelines found in the 2005 Education Space Criteria Handbook, and on building types, (i.e., classrooms or dormitories). Standardizing construction processes and materials has produced overall program cost savings, fostered sustainable structures, instilled the use of green building construction techniques, and created more predictable operations and maintenance forecasting.

Go to the OFECR intranet website to listen to a podcast on the school design standards.



Go to the OFECR intranet website to watch a video report on the Sanostee groundbreaking.



From left: OFMC Deputy Director Emerson Eskeets, School Board Members Darnell June and Marie Martin and 8th grader Brandon Benally participate in the January Kaibeto Boarding School groundbreaking.

Sanostee, Kaibeto Begin

Groundbreaking ceremonies for new schools at Sanostee, N.M., and Kaibeto, Ariz., were held in January. The 88 K-3 students at Sanostee Day School will get a 24,306 square foot school, including the development of supporting infrastructure with electrical, gas, water and sewer.

The 276 K-8 students at Kaibeto Boarding School will get a 63,174 square foot school and a 11,322 square foot dormitory, which will house 45 students. Four duplexes for employee quarters also are part of this project. The OFMC project manager for both schools is Dine Benally, a member of the Navajo Nation.



The gym at the Shonto Preparatory School in Arizona is being repaired following a 2010 roof collapse.

Shonto Gym Recovers From Collapse

In January 2010, almost 24 inches of snow accumulated atop the K-8 Shonto Preparatory School gymnasium, causing its roof to collapse. No students or staff were injured.

The Facilities Improvement & Repair project for the 97 ft. by 100 ft. roof and damaged gymnasium is expected to be completed later this year.





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ceiling assemblies, roof assemblies, and doors meet the minimum STC ratings for sound transmission control as specified in ANSI S12.60-2002.

LEED for Schools' minimum acoustical performance is required to qualify for basic certification. However, schools can also earn two additional points for enhanced acoustical performance. One point is given if a 35-dBA/RC level of 27 is reached and a second point if a 40-dBA/RC level of 32 is attained. An additional four points can be earned for 'innovation,' and there is greater flexibility for designing other student benefits via creative acoustical design.

LEED for Schools does not currently make verification testing a requirement—the performance criteria are to be met "on paper" only.

Good acoustical design is about placing the proper equipment in the correct place, such as keeping loud HVAC and other mechanical equipment away from classrooms. The judicial placement of classroom doors throughout hallways can also make a big difference. One important benefit is that acoustically sound building design usually incorporates sound-absorbing materials which often double as thermal insulators, creating energy-efficient rooms that save the facility heating and cooling costs over the long run.

In older buildings, windows create holes that readily transmit or 'leak' sound. Today's high-performance windows can improve comfort and reduce the transmission of outdoor noise while at the same time increasing energy efficiency.

Adapted from: Construction Canada

Standing Rock Gets LEED Gold; Porcupine LEED Silver and Jeehdeez'a LEED Certificate



Porcupine Day School opened in 2009.



Jeehdeez'a Academy opened in 2008.

Standing Rock Elementary School in North Dakota received a LEED Gold Certificate from the U.S. Green Building Council in March—the second OFMC-funded replacement facility to gain this nationally recognized ranking for environmentally sound design and construction. The 62,760 square foot replacement school for 401 students in grades K-5 features a ground source heat pump cooling and heating system. Some of the points earned toward the LEED Gold Certificate resulted from Standing Rock School Board's decision to purchase additional green power credits.

Last year, Navajo Preparatory School's Student Center in New Mexico received a LEED Gold Certificate.



Standing Rock Elementary School opened in 2010.

Earlier this year, Porcupine Day School in South Dakota, a 66,000 square foot replacement school serving approximately 300 K-8 students, received a LEED Silver Certificate. And Jeehdeez'a Academy in Arizona, a 74,000 square foot replacement school and dormitory, received a LEED Certificate. The K-6 school serves 313 students.

Phil Sarracino, Laguna Pueblo, was the OFMC project manager for Standing Rock and Jeehdeez'a. OFMC Deputy Director Emerson Eskeets, Navajo, was the project manager for Porcupine.

PUBLIC NOTICE

Official Business Penalty for private use \$300

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Assistant Secretary-Indian Affairs Office of Facilities, Environmental and Cultural Resources

DEPARTMENT OF THE INTERIOR

The Office of Facilities, Environmental and Cultural Resources oversees the Office of Facilities Management and Construction, the Division of Safety and Risk Management, and the Division of Environmental and Cultural Resources Management.