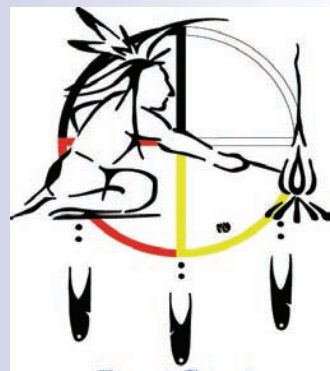


Department of Energy Tribal Energy Program Review



Forest County
Potawatomi Community

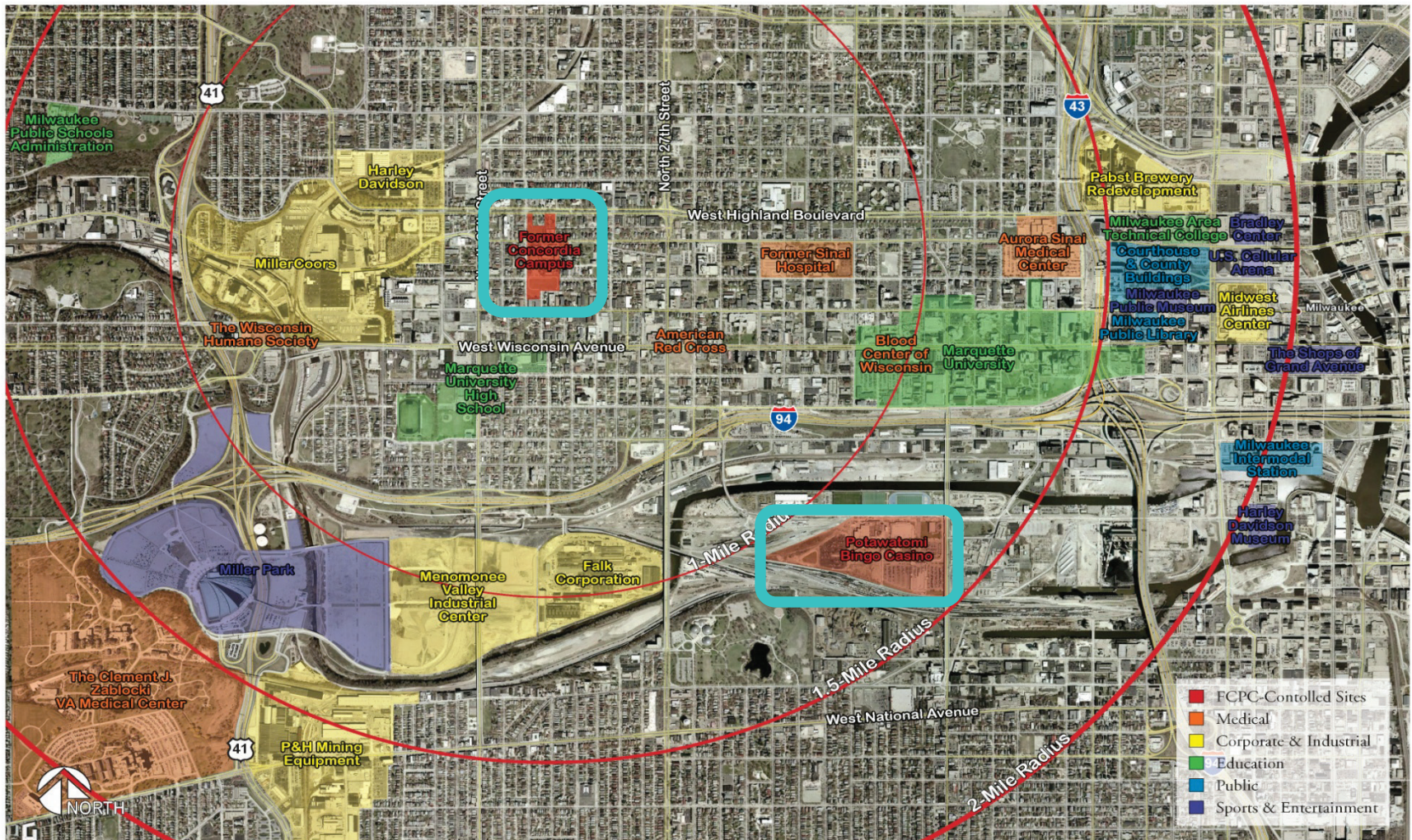
Forest County Potawatomi Community
Parking Ramp and Wundar Hall Projects



Background on Forest County Potawatomi Community

- FCPC has trust land in northern Wisconsin and City of Milwaukee
- Facilities in northern Wisconsin include tribal government offices, a health and wellness center, a cultural museum, a casino and hotel and various other smaller support facilities and enterprises.

Trust Land in Milwaukee





Project Greenfire

- In late 2007, FCPC established Project Greenfire
 - An effort to assess and reduce the Tribe's environmental impact
 - A major component of the project is to reduce the Tribe's overall carbon footprint.
 - The goal is to ultimately eliminate the Tribe's carbon footprint, be energy self-sufficient, and to be a provider of carbon-free energy to others.



Project Greenfire

- Project Includes:
 - Energy audits for the Tribe's major facilities
 - Identification of over 100 substantial energy saving projects
 - Improvements to the Tribe's energy use by implementing energy saving measures in Tribal facilities
 - Quarterly Energy Reports
 - Implementation of renewable energy projects to offset or replace fossil fuel-derived energy
 - Addressing transportation-related emissions
 - Identifying renewable energy and other environmentally beneficial development projects for the Tribe to invest in



FCPC Energy Efficiency and Carbon Reduction Initiatives

- Initial focus primarily on energy usage at major facilities and on renewable energy opportunities.
- Also addresses transportation emissions (e.g., switch to four-day work week for tribal government operations in Northern Wisconsin, resulting in 170 tons of carbon reduction).
- Overall goal: eventually reducing Tribe's carbon footprint to zero, and obtaining carbon-free energy self-sufficiency and potentially green energy sales to others.



Quarterly Energy and Carbon Reports

- Identify energy and associated carbon emissions from all FCPC buildings.
- Energy usage/emissions from major energy using buildings, including identification of effects of energy efficiency measures.
- Comparison of energy usage/carbon emissions for past twelve months against 2007 baseline year.
- Already significant reductions: 10.3% decrease in energy and 18.6% decrease in carbon per square foot in 12 months ending September 30, 2009 against 2007 baseline, despite cold January.
- Reductions represent hundreds of thousands of dollars per year in energy cost savings, which have present value in several million dollar range before carbon cost is included.



Continued Implementation of Energy Efficiency Efforts

- Although significant reductions have already occurred, numerous additional opportunities remain.
- Coordination among facilities to share best practices and efficiency opportunities.
- Use of quarterly reports to track effectiveness of efficiency measures and to identify additional opportunities.
- Maximizing value of state and federal incentives for energy efficiency measures.



Tribal Energy Grants

- Two grants received from Department of Energy for Energy Efficiency Programs at Tribally owned buildings
 - Energy Efficient Lighting for Parking Ramp at Milwaukee Casino
 - Energy Efficiency measures for renovation of Wundar Hall on trust property located in Milwaukee

Parking Ramp Project

- In June 2008 the Tribe's Milwaukee Casino, Potawatomi Bingo Casino unveiled an expansion which tripled the size of the existing Casino



Parking Ramp Project



The Casino expansion also included an expansion to its 6-story Parking Ramp



Parking Ramp Project

- The Milwaukee Casino is the Tribe's most energy intensive building and accounts for the majority of the Tribes' total energy use.
- The expansion incorporated numerous energy efficiency measures. The result is that while total energy use increased, energy use per square foot of the Casino is substantially lower after the expansion



Parking Ramp Project

- The project will replace 1,720 205-Watt Metal Halide-type lights in the Parking Ramp Structures with energy-efficient 55- Watt LED lights.

Parking Ramp Project

- Total anticipated energy usage reduction of 2,260,080 Kw/hr/yr





Parking Ramp Project

- Represents a 54% reduction in energy use for the Parking Structure
- Results in corresponding reduction of approximately 1,912 tons of CO₂ per year.
- Represents approximately \$155,000 savings per year for energy costs



Parking Ramp Project

- Lighting fixtures include a 10-year warranty that will reduce annual maintenance costs \$7,000 annually for 10 years.
- In addition, since the LED lights have a longer life they will also reduce maintenance costs by reducing the number of light bulbs replaced in a year and the time spent replacing them



Parking Ramp Project

- Total project cost is \$918,800 with \$459,400 support from U.S. Department of Energy; additional funds anticipated from Wisconsin Focus on Energy program
- Anticipated pay-back to Tribe for its portion of the costs will be within two years of installation

Wundar Hall Project

The former Concordia College Campus is located just west of Downtown Milwaukee and was acquired by the Tribe and taken into Trust in 1990

The Tribe has been leasing to a long-term tenant whose lease will end in July 2010



Wundar Hall Project

- Wundar Hall is a 34,000 sq ft dormitory building located on the campus and currently is not in use
- Wundar Hall was built in 1925 and is listed on the National Register of Historic Places.





Wundar Hall Project

- The Tribe is developing plans to best utilize the Campus once the property is turned back over to it in July of 2010; plans include a mix of economic development, tribal offices, offices for non-profits that serve the urban Indian population of metro-Milwaukee and to continue housing an alternative public high school, with a particular emphasis on Native American Students
- Wundar Hall renovation is part of the overall redevelopment of Concordia Campus, which will provide needed tribal services and job opportunities in this inner-city area. The Tribe plans to develop Wundar Hall to further economic development for the Tribe and to further diversify its economy
- The Tribe will incorporate the principles of Project Greenfire for this project while preserving the historic nature of the campus and surrounding neighborhood and become a model for balancing environmental sustainability and economic development with the challenges of urban redevelopment in an economically depressed neighborhood

Wundar Hall Project

- Project will include the following components:
 - Building Envelope: energy efficient windows and doors, upgraded exterior wall and roof insulation, sealing of exterior masonry.





Wundar Hall Project

- Project Components cont.
 - Building HVAC System: install new 94% efficient gas-fired boilers and chillers, upgrade insulation on the distribution systems, and install a digital control system to optimize efficiency.
 - Building Plumbing System: Install energy and water saving fixtures throughout the building.



Wundar Hall Project

- Project Components cont.
 - Building Electrical Infrastructure. Install energy-efficient interior and exterior lighting (florescent or LED) and energy-efficient lighting controls including dual-level switching, day-light controls, and automatic shutoff.



Wundar Hall Project

- Anticipated total energy savings resulting from the implementation of this project are projected to be:
 - Natural Gas—18,400 therms/yr or 58% of energy use without the upgrades
 - Electricity—205,000 kWh/yr or 55% of energy use without the upgrades



Wundar Hall Project

- Energy Efficiency Project is a part of a larger over-all renovation of the building
- The Energy Efficiency portion of the overall project cost is \$2,230,086 with \$1,115,043 support from U.S. Department of Energy; there is also a potential for additional funds from Wisconsin Focus on Energy