

## Did You Know?

A new food pantry has been established in the Village of Sugar Grove, Illinois, and is being spearheaded by Melisa Taylor, resident and Village Trustee. In preparation for the pantry operation, volunteers have been cleaning, painting and organizing the space donated within its building by Engineering Enterprises, Inc. The Kane County Sheriff's Department donated shelving that was due to be discarded from the old county jail. The new food pantry is expected to open in August 2009. Sugar Grove, with a population just under 10,000, is located on the western edge of the Chicago metropolitan area. EEI is proud to provide a home for the Sugar Grove Food Pantry and the valuable assistance it will deliver. To learn more about the food pantry, please contact Melisa Taylor at (630) 466-0345 or [mtaylor@sugar-grove.il.us](mailto:mtaylor@sugar-grove.il.us).

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## Enterprises Trivia Challenge

**Q:** According to a report issued by the Federal Highway Administration and the United States Environmental Protection Agency, what percent of the asphalt from road surfaces' that is removed each year during widening and resurfacing projects is reused as part of new roads, roadbeds, shoulders and embankments?

Send your answer to [eei@eeiweb.com](mailto:eei@eeiweb.com) or fax to (630) 466-6701 by September 1st to be entered in a drawing for a \$100 American Express gift card!

### Spring 2009:

Q: What is the longest suspension bridge in the United States?

A: Verrazano-Narrows Bridge, New York City, NY



Engineering Enterprises, Inc. (EEI), founded in 1974, provides consulting engineering services throughout northern Illinois. Our expertise includes water, wastewater, transportation, structural, stormwater, construction management, land surveying and GIS.

[www.eeiweb.com](http://www.eeiweb.com)

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EEI  
35<sup>th</sup>  
Anniversary

# Enterprises



## Open for Traffic and Development!

After much anticipation the extensions of Municipal Drive and Galena Boulevard in the Village of Sugar Grove have been completed, and the area is ready for traffic and development! EEI is honored to have worked with the Village of Sugar Grove from planning and design through construction to see Municipal Drive and Galena Boulevard open.

With the help of former House Speaker Dennis Hastert the \$10 million roadway improvement project included \$3.8 million awarded from the Federal Highway Bill SAFETEA-LU. The finished roadways will improve the north/south collector network and will provide the transportation infrastructure needed to support the land use, economic development and growth objectives established by the Village of Sugar Grove.

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## Hot-in-Place Recycling

The cost of roadway rehabilitation and maintenance can be a substantial part of a public agency's annual budget. As these costs continue on their current significantly rising trend as evidenced in recent years, the need for cost-effective roadway maintenance solutions is more important than ever.

One way to conserve our roadways, budgets and non-renewable natural resources is the use of hot-in-place recycling in annual roadway maintenance programs. This technology was utilized to save on rehabilitation costs by reducing the need for new hot-mix asphalt on three major roadway resurfacing projects within the last six months in the Village of Sugar Grove and the United City of Yorkville. While the technology has been around for decades, the use of hot-in-place recycling has only continued to increase due to the recent spike in the cost of the liquid asphalt, a derivative of petroleum.

Prior to commencing a hot-in-place recycling project, careful consideration should be given when selecting the proper roadways on which to use this process. Ideal candidates are roadways with little to no structural failures; additionally, a higher volume of roadways should be selected for the process to be economical, due to the high cost of equipment mobilization. Pre-planning can reduce overall rehabilitation costs by as much as 25% when compared to a standard overlay project.

The first step of the hot-in-place recycling process, is heating the existing asphalt pavement. Larger heating units heat the existing pavement to temperatures sufficient to allow the material to be reworked. After the heating units pass, the heated pavement is sprayed with an asphalt rejuvenator liquid, which treats the existing asphalt and returns the material properties back to those similar to new liquid asphalt. Then, the scarifying unit, a spring-loaded rake with long carbide tipped blades, is drawn through the pavement, loosening the material down to a depth of approximately one inch.



Heating unit heats the existing pavement



Scarifying unit loosens the heated material

After the material has been heated, scarified and the rejuvenating liquid has been added, large augers scrape up the loose material and mix all of the components thoroughly. In the last stage of the process, a screed, similar to that at the back of a standard roadway paver, spreads the recycled material in a smooth layer across the roadway. Steel drum or rubber tired rollers are then used to compact the material to the required density and the process is complete. Typically, this process is used in conjunction with a standard overlay; however, in many cases pavement milling is no longer required and the thickness of the new hot-mix asphalt overlay maybe reduced.

To see if hot-in-place recycling is right for you or to learn more about the innovative solutions available to reduce your roadway maintenance costs, contact Jason Bauer, Project Manager, P.E. at (630) 466-6700 or [jbauer@eeiweb.com](mailto:jbauer@eeiweb.com).



Recycled material spread on the roadway

## Start Saving Money with the Energy Efficiency Grant Program

The passage of the American Recovery and Reinvestment Act of 2009 also referred to as ARRA or the "Stimulus Bill", has included \$3.2 billion for states, local governments and tribes for energy efficiency and conservation projects under the Energy Efficiency and Conservation Block Grant program (EECBG). \$1.9 billion is allocated to eligible cities and counties. Direct allocations have been made to cities with populations greater than 35,000 and counties greater than 200,000. In Illinois, the Department of Commerce and Economic Opportunity (DCEO) has applied for \$21.8 million of which \$13.1 million will be allocated to make grants available to municipalities with populations less than 35,000. DCEO is expected to release a competitive call for projects in the coming months. Work with Engineering Enterprises, Inc. (EEI) and be ready!



There are a number of projects that are eligible for funding under this program. It is an outstanding opportunity to advance energy efficiency and conservation projects in your local community. We encourage all municipalities to apply for these funds. Examples of eligible activities under the EECBG program are:

- Residential and Commercial Building Energy Audits
- Financial Incentive Programs
- Energy Efficiency Retrofits
- Energy Efficiency and Conservation Programs for Public Buildings and Facilities
- Development and Implementation of Transportation Programs
- Energy Distribution Technologies
- Building Codes and Inspections
- Material Conservation
- Traffic Signals and Street Lighting
- Renewable Energy Technologies on Government Buildings

EEI has been assisting direct allocation municipalities with EECBG projects such as street light retrofits, off-peak water and wastewater pumping systems, variable frequency pumping controls, wastewater aeration system retrofits, landfill gas capture and beneficial use, building energy audits and facility lighting retrofits to name a few. Our staff is trained in the EECBG program and has developed skills in program assessment and implementation. We welcome the opportunity to meet and provide an overview of the program and explain how EEI can assist your agency in accessing grant funds and implementing energy efficiency improvements that will save you money and benefit your operations for years to come.

To obtain more information on the EECBG Program and how your agency can benefit from it, please contact Tom Talsma, Vice President at (630) 466-6700 or [ttalsma@eeiweb.com](mailto:ttalsma@eeiweb.com).